

Salting It Away

In an electrical power plant system that's based on the solar central receiver concept, water/steam (as used in Solar One at Barstow) may well not be the best medium to transfer solar heat from receiver to generator for making electricity.

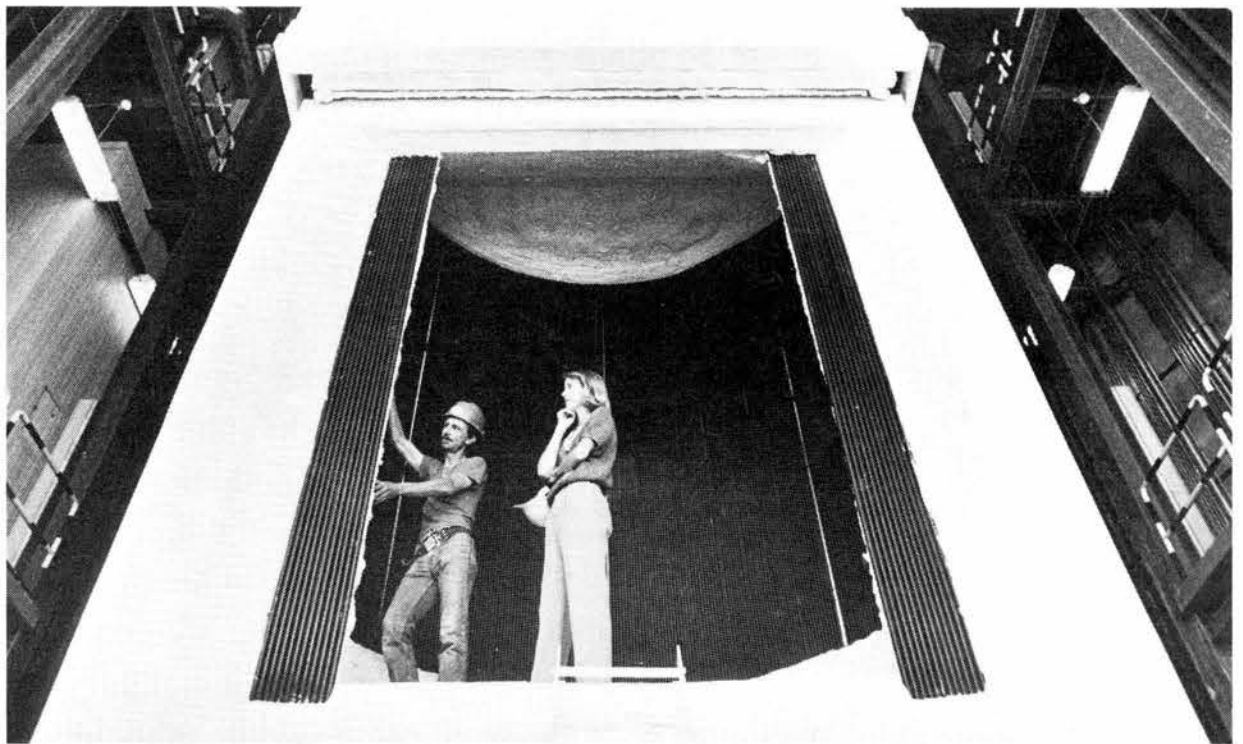
And, of the major contenders for "best" — liquid sodium, hot air, and molten salt — many researchers think that molten nitrate salt is the most promising medium for heat transfer and storage, especially for utility-scale electric power plants.

The problem of "which heat-transfer element?" has been studied ever since the early 70s, when development of solar thermal central receivers began. The feasibility of using molten salt to convert solar energy to electricity was established by the Molten Salt Electric Experiment (MSEE). This full-system demonstration of molten-salt solar technology was performed at the Central Receiver Test Facility in Albuquerque and was the first U.S. solar central receiver systems experiment to employ molten salt.

The final phase of the MSEE test, completed in July 1985, was monitored by Bill Delameter (who has since transferred to 8241) and Nina Bergan of Solar Central Receiver Systems Division 8471. Now that the MSEE program has demonstrated the feasibility of molten salt, Nina has embarked on a new project: the Molten Salt Subsystem/Component Test Experiment (MSS/CTE).

Nina explains that the new series of tests is an extension of the MSEE program. The earlier program identified important design issues in molten salt cen-

(Continued on Page Three)



LEADING A PROJECT to explore the economic feasibility of molten salt as a heat-transfer medium in a central solar receiver system is Nina Bergan (8471). Here, she and technician Sam Dunkin (6222 contractor) check the area behind the new molten salt receiver high in the Central Receiver Test Facility (the "power tower") in Albuquerque.



LAB NEWS

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SANDIA NATIONAL LABORATORIES

AUGUST 1, 1986

It's That Time Again

Performance Evaluation: The Goals Are Fairness and Communication

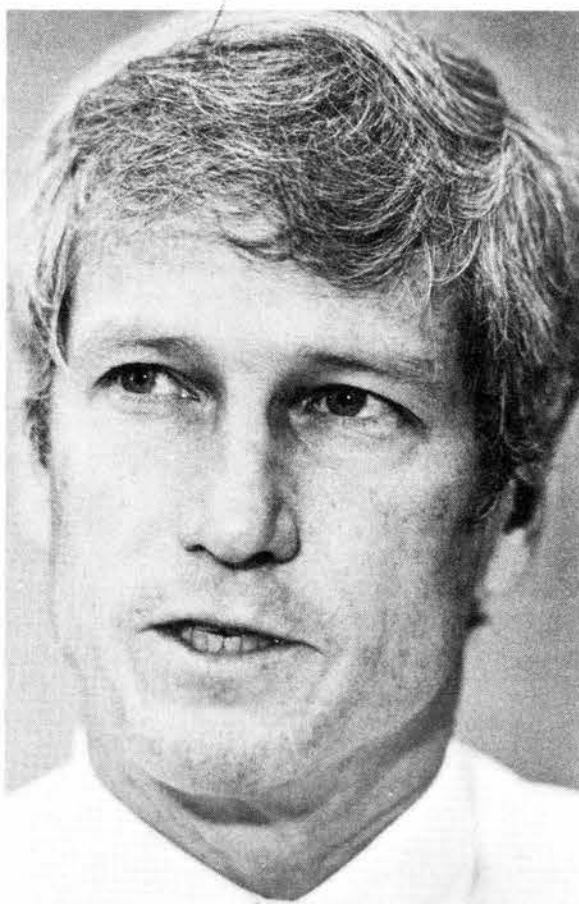
Just like the seasons, it rolls around once a year: the annual performance evaluation process for non-represented employees. It's in progress right now, so this may be an appropriate time to look at the Sandia "system" — its aims, how it works.

Some employees tend to view the whole procedure as cloaked in some sort of mystique. They're leery because they're not sure just what to expect, and think "someone up there" keeps the system purposely vague. "In truth, there's nothing mystical about our evaluation system," says Ralph Bonner, director of personnel (3500). "Sandia management wants employees to understand why we use the system we do and how it works, and hopes they [employees] will regard the process as beneficial — for both staff members and supervisors.

"No performance evaluation system in the country is perfect," he continues. "If there were a perfect one, we — and everyone else in the country — would adopt it. When we see problems with the Sandia system, we try to fix them; the system is not carved in stone."

Marv Torneby, manager of Personnel Department 3530, says a major emphasis of staff performance review is to assure regular and formal communication between supervisor and staff member that lets them both take a look at where the organization's going, where it's been, what's expected, how the work of their group fits into the overall Labs picture. "It's a time to focus on assignments and what's been accomplished during the past year," he says, "and a chance to explore what's good for the employee and good for the Labs. What's really important is that it's two-way communication; the supervisor shouldn't do all the talking, nor should the staff member."

Few employees overlook the fact that performance evaluations have a relationship to one's pocketbook; they're tied in with salary review. But there's a myth out there among employees that should be put to rest, says Jim Raines, supervisor of Salary



RALPH BONNER (3500): "Management wants employees to understand why we use the system we do and how it works."

Administration Div. 3552. "You hear people say 'If you get a high rating [during evaluation], you'll get a big raise,'" Jim told us. "But that isn't necessarily so. For example, if an employee has a high rating and his or her salary is already high, the person's raise may be modest. On the other hand, a person rated 'good' whose salary is below the appropriate pay position for his or her performance rating may

be in line for a substantial increase."

Marv and Jim agree that a goal of the annual evaluation routine for MLSs is to more closely align an individual's pay with performance on a given job that's "scored" — assigned a point value — to reflect its relative value to the Labs. Jobs are scored on the basis of three factors: (1) *know-how*, which covers practical, specialized, or professional knowledge required to do the job; (2) *problem-solving*, measuring the quality and quantity of problems to be faced in the job, and the amount and extent of original thinking required to solve them; and (3) *accountability*, an evaluation of what the job is expected to produce and its impact on the Labs' operations. Hay Associates of Philadelphia developed the MLS job-scoring plan for Sandia, as Hay had previously done for AT&T Technologies, Inc., and AT&T - Bell Labs.

On the MTS side of the house, the procedure is different; jobs aren't scored. Certain assignments are viewed as more critical than others to Sandia's mission, but it's the scientist or engineer who "makes the job." MTS performance ratings include an assessment of the nature and level of the work and how well the person does the job.

Designators Are Used

Back to those ratings: good, outstanding, satisfactory, etc. This series of descriptive words — so-called designators — are used during the evaluation process to properly reflect individual employees' contributions to and impact on the work of the Labs, in comparison with their peers.

Designators, though, can present a problem if one doesn't have the proper perspective on Sandia's unique situation. "The Labs hires the top talent in the country," says Executive VP Lee Bray (30). "Sandia staff people are achievers, any way you look at it; many have never received anything but 'A' grades throughout their entire academic careers. A person with that background may look at a 'good' or 'mid-

(Continued on Page Six)

Antojitos

LAB NEWS Good Deed of the Day To save you some embarrassment, you should know that one of the ways that President Welber is getting to meet and know more Sandians (see the Feedback item elsewhere in this issue) is to eat in the Sandia cafeteria. Said Irwin to one fellow diner, "What organization are you in?" "9321 [or whatever it was]," replied the fellow; "and how about you?" "One," said Irwin. "Which one?" asked the fellow.

Another diner introduced himself by name. "And I'm Irwin Welber," came the response. "Sure you are," said the Sandian. "And I'm the Pope."

* * *

A Plug for a Paper (Not Ours!) There was once a time -- during the days that Sandia was exclusively a nuclear weapons lab and much of the information generated was classified -- when the LAB NEWS was able to run, in one form or another, virtually every technical press release issued by our sister division, Public Information Division 3161. No more.

As Sandia has matured as a diversified R&D lab, technical press releases are gushing forth at a rate too great for us to include every one in the LAB NEWS. We select those likely to appeal to the greatest number of readers, rewrite them for a more general audience, and include a liberal dose of historical background for the large number of Sandians who've joined the Labs in the past few years.

The place to read all the Sandia news releases is the Sandia Science News. A four-page newsletter printed at least once a month, it goes to every division supervisor, as well as to a great many readers outside the Labs. If you want to see it but you're not, gripe upward -- or call 3161 and get on distribution.

* * *

Oversight Committee Report Recent retiree Bill Kraft writes to commend us for our coverage of PLZT (July 3) and to condemn us for an omission in terms of credit: "The person who headed up the challenge of transferring the technology from lab to factory was Al Thornton" (1633).

●BH

* * *

Overheard on TV: "Gorbachev doesn't like Star Wars, that's evident. He did, however, really enjoy Return of the Jedi."

--Smirnoff, Russian immigrant comedian



CREATOR of fictional detective Lieut. Joe Leaphorn, Tony Hillerman also wrote a book for children. His good-natured impudence in describing people and politics self-reportedly does not endear him to local chambers of commerce.

Community Focus Series

Wanted: Listening Women — and Men

"Like golden tears, the Listening Woman — healer, Earth-listener, chant-singer — sprinkled yellow corn pollen over the old man to turn away the Witches of Death. But then, the visit came, for though his chest was painted and alive with every color of the Navajo world, his heart was dead."

— Tony Hillerman, *Listening Woman*.

An award-winning Albuquerque writer, Tony Hillerman frequently sets his cliff-hanging mystery novels on Southwest Indian reservations. The *St. Louis Post Dispatch* considers his use of background "brilliant"; the *New Mexican* praises his "factual stories . . . in fictional disguise." Hillerman will present some of his source materials in the Tech Transfer Center, Bldg. 825, at noon on August 5.

The talk, "Southwest Indian Mythology," will delve into Navajo and Hopi versions of the origin of the universe, the creation of man and woman, and the tribes' relationship with supernatural powers. Just the kind of stuff astrophysics is made of . . . and the kind of basic questions that arise on the back of your spine while driving by the Black Mesa or Acoma City at deep twilight.

"You know. Where you'd find the mastodons and ground sloths and the saber-tooth cats and the long-horn bison, because of surface water and climate when this country started up. And . . . where the Folsom hunters were likely to have their hunting camps." Thus spake Hillerman. *Dance Hall of the Dead*, from which the last quote was drawn, won him the Edgar Allan Poe Award for 1973's best mystery.

Hillerman is the author or editor (*The Spell of New Mexico* should be mandatory reading for newcomers to Albuquerque) of thirteen other books. Five of his novels have been book club selections, and six have made the *New York Times* "notable books of the year" listings.

The Oklahoma native worked in the past as a police reporter, political writer, and newspaper editor. He then earned an MA in English at UNM, where he later served as chairman of the Journalism Dept. and twice as assistant to the president. He resigned from UNM's faculty last year.

Regional human foibles form the primary texture of Hillerman's novels and essays, as exemplified by *The Great Taos Train Robbery (And Other Indian Country Affairs)*. Yet his work appears to echo some universal themes and sardonic delights: His books have been published in England, Germany, Italy, Spain, France, Japan, Holland, Sweden, and Norway.

Y'All Don't Come

For You, Your Kin Only



Neither pals nor pets qualify for the guest list this year at Family Day, lined up for all day Saturday, Oct. 18.

Guests will be restricted to family members of Sandia and DOE/AL employees, "Q"-cleared Sandia contractors and consultants, and Sandia retirees. The definition of

family is narrower than "Webster's" and includes: a spouse, children, parents, grandparents, siblings, in-laws, and any relative who's part of the household.

New hires who are awaiting their clearances may attend Family Day, provided they are escorted — during their whole stay in security areas — by a cleared employee (preferably one who's assigned to the same organization as the new employee) and are listed on the escort's Guest List form.

Before Family Day, employees will receive a Guest List form that has to be completed and presented — along with badges and/or retiree ID cards — upon arrival at a Tech Area gate.

Family pets will not be allowed inside the fence under any circumstances.

These Are Special Cases

Special arrangements have to be made by Sept. 1 (just one month away) for close relatives who are not U.S. citizens. Such requests will be handled on an individual basis and should be directed to Tim Lucero, Access Control and Administration Division 3437, at 4-6005. (Citizens of Communist-controlled countries *will not* be permitted to attend Family Day events.)

Requests to bring close non-family friends or live-ins will be handled as exceptions on an individual basis. A special-access form will be available for such cases by the middle of this month.



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Salting It Away

tral receivers and in two types of commercial-scale pumps that had never been tested on such a large scale using molten salt. Now there's a concern that large commercial-scale valves of the type commonly used in industry may not work with molten salt; MSEE tests used smaller, more specialized valves.

"These three design issues need to be addressed to make this technology commercially feasible," says Nina. "We know solar systems work, but there are still potential hurdles to commercialization in the form of hardware development.

"We're looking at specific components to be used in solar plants using molten salt," Nina continues. "MSEE was mostly small scale. Now we're testing components to be used in commercial plants with 10- to 12-inch pipes and larger capacity pumps. For example, the MSEE used a 60-horsepower pump motor, which two people can lift. The MSS/CTE, however, will employ a 2200-horsepower motor weighing 33,000 pounds. The receiver is a cubical cavity type like the one used in MSEE but with a critical design difference in the way that its tubes are supported and manifolded."

The receiver tubes, which absorb the solar energy, are the real working part of the system. After they and the piping and instrumentation were installed, all hot components except the solar absorbing surface were heavily insulated. The entire unit is enclosed in sheet metal, leaving only the receiver cavity open. The enclosure minimizes heat loss and protects the interior from the elements.

"Testing of the receiver is scheduled to start this month," says Nina. "Pump and valve testing begins in November. Design of the MSS/CTE began in April 1984 and fabrication of the receiver began in the spring of 1985. We're incorporating critical design features for a 300-megawatt (MW) thermal receiver.

"Our new system is being tested at the 5-MW Central Receiver Test Facility in Albuquerque. Over the years the people there—John Otts and Bill Couch [both 6222] and others—have developed the knowledge and capability for testing solar central receivers."

Nina points out that the MSEE demonstrated the technical feasibility of molten-salt central receivers; the next step—the MSS/CTE experiment—is to establish economic viability. Results from this test, as well as results from Solar One, will help answer the economic questions that stand between us and commercialization. She concludes: "I'm optimistic about the future of this technology."



SECOND ANNUAL Professional Secretarial Seminar was held in July for Sandia Livermore secretaries. Shown talking on interpersonal relations is Ann Hogan (8265). Other speakers during the daylong session held at the Pleasanton Sheraton Hotel were Dr. Merle Campbell on eye care, Art Krakowski of LLNL on stress management, Sue Henderson (3700) on the Certified Professional Secretary rating, Jim Smith (8024) on educational opportunities for secretaries, and Bob Johnsen (8254) on Sandia's physical plant.



SANDIA LIVERMORE NEWS

VOL. 38, NO. 15

SANDIA NATIONAL LABORATORIES

AUGUST 1, 1986

Welcome

Livermore

John Hunter (8361)

Dublin

Michael Hardwick (8441)

Danville

Kim Mahin (8312)

Mountain View

Fred Trebino (8354)

Tracy

Glenda Gentry (8341)

Arizona

David Ching (8432)

Florida

Lovey Garg (8176)

New York

Ron Renzi (8351)

Congratulations

Winalee Beeson (8431) and Stan Carter married in Livermore, June 28.

Jerry Priebat (8161) and Juanita Sorrick, married in Livermore, July 13.

Deborah (8471) and Byron Linnell, a son, Richard John, born July 17.

Sympathy

To Gordon Bennett (8186) on the death of his father in Fremont, July 9.

To Tim Sa (8271) on the death of his grandmother in Fremont, July 15.

Getting Away from It All?



... Customers of Near Escapes [tour operator in San Francisco] usually escape indoors ... to places that many other people would demand payment for having to visit. They have taken sight-seeing jaunts through the San Francisco sewer system, for

example, and through the kitchen of a McDonald's restaurant. Some of the \$5 to \$35 field trips are outdoors — in cemeteries. "People think, 'Boy, you must have a dull life if you want to go visit a cemetery,'" says Nancy Elsberry, a customer. "But I missed so many field trips when I was in school. I'm making up for them now." Carrie Dolan, *Wall Street Journal*



THINK THIS IS THE BAY, Livermarians? Or, Del Valle Park? Well, 'tain't so, not by a long shot! That's Brazos peak, 1100 miles away (as the missile flies) to the EAST (near Carson National Forest). And that's Jim Cocke (7231), veteran sailor, well in the lead in the first race of the Challenge Cup. (See story next page.)



HEELING OVER as they head upwind for the first mark, a mixed lineup o' boats starts the first race. LAB NEWS photographer Randy Montoya, who went along as Bill Blankfield's guest, visualized the sailboats as "skidding tightly around the buoys

like race cars in mud." Mylar sails rattling and ruffling in the breeze, the Rio Grande Sailing Club's team won the Cup by the end of the second race, just barely beating the worst of the thunderheads and the rain.

Tinkerers, Racers, Mariners, Sailors

Trimming the Light Fantastic Sail

Yes, Livermore and all you new SNLA kids on the block, there really is water in the high and low deserts near Sandia Albuquerque. Lots of it, and challenging wind as well.

What's more, there are hundreds of Sandians (including family members) who spend their weekends "pinching," "pointing," "beating," "luffing up," and "reaching" at Lake Heron or Elephant Butte.

"Sailing is the perfect hobby for tinkerers," says Linda Gruer (2822), Commodore of the Rio Grande Sailing Club. "It appeals to the typical Sandian mind. People who are technical like to stay busy. And sailing — like flying — can be just as technical as you want it to be. The challenge is that you never quite get all the variables figured out."

Formally speaking, Los Alamos people make up the core of the state's other group, the NM Sailing Club. But last month's Challenge Cup race ("our version of the America's Cup," Linda says) shows how the two clubs don't claim their surfs as solely their own turf. Sailors go by the season. Both clubs met to compete at Lake Heron in the northernmost part of the state.

In spring and fall, the event calendar favors the southern fleet's Elephant Butte reservoir. During summer, Lake Heron is preferred by many sailors for its cooler weather and mountain scenery — and many Sandians switch allegiance to the north, bringing their boats with them.

Informally, anyone is welcome to take part in the clubs' activities. Linda and her husband Earl

(6311), who's celebrating his 30-year extracurricular milepost as a sailor this year, belong to both clubs. The annual fee for each is about \$25. Another \$5-10 will get you into a race.

Sometimes the races, such as the Challenge Cup, are run between the clubs, with separate teams of a few boats apiece. Others, such as the upcoming Labor Day race, are more of a regatta, i.e., centered on individual competition: making the best time possible.

Once a year in winter, there's a Frostbiter Race for the dozen or so polar bears among the Rio Grande Club's members. Neither snow nor hail keeps them from that appointed round on Elephant Butte. Then there's the Tequila Sunrise, a 50-miler that goes into nighttime or even the next morning. This one's accomplished with spotlights, strobes mounted on the buoys, and heavy use of compasses.

Human service is also part of life afloat. A Pickle Race — no one knows when or where the moniker came from — is run every Easter, giving kids from the Boys' Ranch a chance to pluck tags from the buoys.

Racing is necessary — even if it's only occasional — because it sharpens your skills, is how Earl describes it. "You get to be a better sailor," he says. "If you sail through a squall on a high mountain lake, you're ready for just about any type of ocean sailing, where wind velocities are generally lower and more predictable."

Adds Linda, "We always sail as if we were racing. Not in real intense fashion, but we do pay atten-

tion. I want to learn as much as I can. In our case, although Earl's probably the most knowledgeable, I have to know enough to rescue him if he happened to fall overboard."

The raceless weekends, then, are spent cruising. "We get away from commuting tribulations, screeching tires, barking dogs, and loud music," says Earl. "We're people who like serenity, peace, camaraderie . . ." "And tuning in with nature," continues Linda. "We like the beautiful experiences that are available on a no-wake [powerboats prohibited] lake. We also revel in the mutual need for cooperation."

There is enough to do on a sailboat to give any husband-and-wife team plenty of responsibilities. A 50/50 split is often mandatory, no ifs, buts, or squabbles about shipwork philosophies. Last New Year's Eve, for example, Linda and Earl cruised without an automatic navigation system from San Diego to Catalina Island: a 23-hour trip. Someone had to be at the helm all the time, around the clock. "We changed watch every two hours," says Linda. It had to be done and that was that.

It's not that all cruises are demanding in terms of watching the clock or trimming the sails. There is time set aside for more basic hedonism. Both clubs have organized campouts with potluck dinners, bonfires, and devil-may-care-if-I'm-out-of-tune bonfire singalongs. Occasionally there's also a flashier "raftup," when sailboats will form a line — bow-to-stern (nose-to-tail for you landmongers) — out from shore. The resulting bridge of sails allows people to test their lake legs by hopping from boat to boat. Again, food's the classical reward for reaching the shore.

A full life of sailing can only lead to a sailing to, and right through, retirement . . . "We have no plans like going around the world," says Linda, "even though we may end up going around the world." Earl is in full agreement: "We'd like to go from Seattle to Alaska. Then there are the British Isles. Also Australia, New Zealand — we would like to go across the Pacific. That could take months, or even years."

But, Linda interjects, "We do not plan to get on our boat and never come back. We plan to save enough money to be able to fly back whenever we want to and to trade places with people having boats docked in other places."

They've got a 10-year plan and they're getting ready. Linda's trying her hand at dehydrating food, argonaut-style. They bike, hike, and run — all forms of transportation will be valid once they're out there on shore in a new land, be it Newfoundland or Ireland.

In fact, they've thought of a machine that'll help them get some aerobics done to stay 100-percent fit while on board — and perform a useful function, to boot: "A barebones cycle with an attached generator," muses Earl. "That would do the trick." • ID

HAILING PORT OF ALBUQUERQUE prominently displayed, the 27-foot *Catalyst* gets a few finishing touches for the day from Howard (DMTS, 6254) and Virginia Stephens, the first cruising chairmen of the NM Sailing Club back in '71. Howard says that only one of 10 people who start building their own boats ever finishes — he figures they have 100 hours left. Someone else once said that a boat is like a hole into which you pour money, lots of it. During the last six years, Howard's Ark has become a neighborhood landmark.



Events Calendar

Q. I have attached a newspaper clipping to this Feedback which says that "the executives are no better than the workers" at the new Saturn car-building plant in Tennessee. The article says the GMC subsidiary "will turn out a better automobile and create a better workplace by eliminating executive privileges," like reserved parking spaces.

It also quotes the Saturn president as saying that "In American industries we tend to take executives and put them up on pedestals. That keeps executives from knowing what's going on and keeps workers from identifying with them."

I would like to know what the Sandia President would say about that.

A. Being selected to be your President is one of the highest honors I have received; I am honored and feel privileged to join this organization. However, the stature of Sandia Labs in the weapons community and its contribution to the vitality of Albuquerque and New Mexico place a real burden of responsibility on all of us, especially on me as your President.

Nevertheless, I don't want to be placed on some kind of pedestal. That's why I'm working, in a variety of ways, at meeting and getting to know as many of you as I can. That helps me keep the pedestal at ground level.

With respect to executive parking privileges — I've given the subject some serious thought and, while there are good arguments on both sides, I've ended up feeling that reserved parking is appropriate. A reserved parking slot is not so much a symbol of rank as a symbol of responsibility, in this case the responsibility to the community I mentioned earlier. I (as well as other members of Large Staff) frequently have to leave the office during the day to represent Sandia at meetings in town. The time this would take if it were not for convenient parking would be increased significantly.

I am not claiming that my job is any more demanding of energy than anyone else's job at Sandia. And I do realize that parking privileges raise the pedestal issue in a very public way. But I believe that, if I can maintain open and honest communications, both of us will know what's going on and I will be able to identify with all of our employees in such a way that the natural irritation of reserved parking slots is minimal.

You didn't ask about it, but let me comment further on a related matter — that of more attractive office space for members of Small and Large Staffs. That ties in directly with another point I mentioned above: the stature of Sandia in the weapons community. I think none of us want Sandia to be perceived by important visitors as the "poor relation" of, say, the other national weapons labs.

Therefore, we are currently working hard to upgrade the attractiveness of our office areas and of the major routes that visitors normally follow to reach those offices (which has meant some improvements to Bldgs. 800, 801, and 802, among others — improvements all of us who travel through those buildings can enjoy). It's also true that "Mahogany Row" hasn't had much more than cosmetic facelifts in 35 years. Given that fact, and the need to appear attractive to visitors, we're upgrading part of the third floor of Bldg. 802 for executive office space.

I probably have not have answered your question in the way you wished. But I hope that you will at least give me credit for taking your question seriously and considering its ramifications carefully.

I. Welber - 1

Q. Sandia has a problem with the expeditious upgrading of commercial software for personal computers. Copyrighted utility software for personal computers is occasionally improved by software companies, and they sometimes make special upgrade offers to the users of their earlier versions. The upgrade fee is typically minimal, such as \$20.

The Small Computer Support Center in Div. 2613 assists us in upgrading some of the more popular software such as Framework and Lotus, but not

on most of the less common ones such as Sideways. To upgrade these, we must go through the regular purchasing channels with an estimated overhead cost of \$150 and a substantial delay in processing the order.

Most software companies want payment to accompany an upgrade request, which now involves a higher-level manager within the line organization and this complicates the process. Therefore, it is usually easier and cheaper not to upgrade the software at all but to buy the new version at full retail price (\$70 to \$300) instead. This seems like a terrible waste.

Why can't a credit card account or alternate means be set up to pay for software upgrades, thereby expediting such requests?

A. The SCSC stocks and supports only software that has been selected and approved by Org. 2600 as the standard for the Labs. This has been done to provide consistency and compatibility of software throughout Sandia and to maximize the SCSC's software support capabilities. However, Purchasing is considering the feasibility of placing a Just-In-Time contract that would be used to acquire and upgrade software not supported by the SCSC. If implemented, this procurement system would provide quicker service at a lower cost. It must be understood, though, that the SCSC would not be providing technical support for software procured under this type of contract.

P. M. Stanford - 100

Q. Why, oh why, can't something be done about access to SATO? I have just put a note in the mail to SATO to please phone me — I need to make several reservations, and I have tried to get through to them for three days now. No luck. The amount of time we (secretaries) spend on the phone trying to make reservations is outrageous. I have two divisions with 30-some people altogether, so I don't have time to spend dialing SATO for days on end.

A. We are aware that recently it has sometimes been difficult to reach SATO reservationists. The primary cause for the backlog in phone calls is a steady increase in travel activity over the past year (up 9 percent) and an influx of special air fares. In other words, SATO is making more reservations and at the same time must check more fares (this means an increase in the time it takes to handle each reservation).

We have told SATO management that we were concerned about service, and SATO has added two more reservationists. If you still have difficulty getting through to them, you can leave your name and number on the SATO recorder (4-6950) and a reservationist will return your call within 15 minutes.

If you have any additional questions, feel free to contact the Travel Division.

R. R. Russell - 3700

Q. The 861 Cafeteria employees, who arrive at 7 a.m., do not seem to have base stickers on their vehicles. In addition, they park in the prime carpool spaces north of the building even though they drive alone. Neither of these seems fair to those of us who have been following Base and Labs rules.

A. You are correct that they do not have base decals on their vehicles. Since they are contractors, they are issued placards by the Purchasing Organization for base access. With respect to their parking in carpool spaces, several days of monitoring failed to disclose this practice. However, the Cafeteria Manager was advised of the allegation and he will caution his employees against parking in any reserved spaces.

J. D. Martin - 3400

Sympathy

To Ken Gentry (2812) on the death of his wife in Albuquerque, June 21.

To Archie Lackey (5146) on the death of his father in Albuquerque, July 12.

To Glenn Kuswa (4030) on the death of his father in Albuquerque, July 14.

Aug. 1 — Summerfest, Friday Evening Gala: Max Apodaca Band (40s, 50s, Dixie), 5:30-9 p.m., Civic Plaza.

Aug. 1-17 — "Tierra Sagrada," a bilingual, romantic musical about life and love along the Rio Grande, 8 p.m. Fri.-Sat., 3 p.m. Sun.; La Compania de Teatro de Albuquerque, El Nuestro Teatro, 256-7164.

Aug. 1-10 — "Top Girls" by Caryl Churchill; 8 p.m. Fri.-Sat.; 6 p.m. Sun.; Vortex Theatre (Buena Vista & Central), 247-8600.

Aug. 1-Sept. 1 — Senior Citizen Artists (opening reception Aug. 1, 1-4 p.m.), KiMo Gallery.

Aug. 1-Sept. 30 — Exhibit, Ye'ii, Ye'ii Bichai and Navajo dry painting ceremonial tapestries; 9 a.m.-4 p.m. Mon.-Fri., 10 a.m.-4 p.m. Sat.; Maxwell Museum of Anthropology, 277-4404.

Aug. 1-3, 8-9 — "1776," musical recreating moments preceding America's Declaration of Independence, 8:15 p.m. (Sun., 2:15 p.m.), Popejoy Hall, 245-6577.

Aug. 2 — Summerfest, International Festival: Germany, Japan, Mexico, Taiwan, and Vietnam; 5-10 p.m., Civic Plaza.

Aug. 2 — Children's Pillow Concert, folk songs from New Mexico and elsewhere, Santa Fe Desert Chorale; 2:15-3:30 p.m., NM Museum of Natural History, 841-8836.

Aug. 2 — Santa Fe Desert Chorale, vocal ensemble; 8 p.m., Keller Hall, 988-2282.

Aug. 2-3 — Collectors Showcase, featuring collectibles; Agriculture Bldg., NM State Fairgrounds, 883-6986.

Aug. 2-30 — Art show: Victor Masayesva, Hopi sculptor and painter; reception in the Pueblo Gallery, 1-4 p.m. Aug. 2; Indian Pueblo Cultural Center, 296-9125 or 296-0766.

Aug. 3-10 — The Classic (Western art exhibit); gala opening Aug. 2, 6-8 p.m., otherwise 1-5 p.m.; free, NM State Fairgrounds, 265-1791, ext. 288.

Aug. 3-28 — Exhibit by Albuquerque United Artists, South Broadway Cultural Center, 848-1320.

Aug. 4 — Santo Domingo Pueblo Feast Day, 465-2214.

Aug. 8-10 — Appaloosa Horse Show, Horse Arena, NM State Fairgrounds, 898-9494.

Aug. 8-10 — 47th Annual Bosque Farms Fair (parade Aug. 8, 6:30 p.m.), Bosque Farms Rodeo Arena & Fairgrounds, free, 869-2302 or 869-2094.

Aug. 8-30 — Sandpainting of the Navajo, one-man show (demonstrations Aug. 9 & 16, 2-5 p.m.); 10 a.m.-6 p.m. Mon.-Sat., 1-4 p.m. Sun.; free, Adobe Gallery (Old Town).

Aug. 9 — Summerfest, a Chinese moon festival: ZHONGQUI, 4-10 p.m., Civic Plaza.

Aug. 10 — Jazz at Madrid—Latin Day, 3-7 p.m., Old Ballpark Pavilion (Madrid), 842-6659.

Aug. 10 — Picuris Pueblo Feast Day, 587-2519.

Aug. 10 — Ceramic Show, Agriculture Bldg., NM State Fairgrounds, 265-1791.

Aug. 12 — Santa Clara Pueblo Feast Day, 753-7330.

Aug. 14-17 — Bernalillo County 4H Fair, Tingley Coliseum, NM State Fairgrounds, 243-1386.

Aug. 15 — Zia Pueblo Feast Day, 782-4481.

Congratulations

Kim and Ron (5144) Franco, a son, Nathan James, June 14.

Susan and Steve (5146) Greene, a daughter, Adrienne Celeste, June 25.

Carol and Tom (5144) Pilch, a son, Christopher Michael, June 27.

Theresa Romero (5311) and Paul Apodaca, married June 28.

Anita and Channy (6427) Wong, a son, Clinton, July 5.

Patty and Mark (5215) Wilkins, a son, Austin Mark-Taylor, in July.

Diane and John (5142) Nevers, a daughter, Heidi, July 21.

Performance Evaluation

50' rating as a 'C.' But at Sandia, that just isn't so. If you're in that middle range, you're with the majority — a select group for which high standards are the norm. 'Good' is high praise. Only some major contribution or extraordinary performance — far above that normal high standard that's 'Sandia average' — is likely to move a person up to a higher rating.

"We don't look at people, assign them a designator, and then group the designators," says Lee. "For instance, on the technical side of the house, we identify a large group of like performers. Then we determine if there are minor performance differences in the group: some people may have done a slightly better job than that very competent majority, some may have been slightly below that standard. 'Contribution' and 'impact' are really the key words here — not 'mid-50' or 'outstanding' or something else.

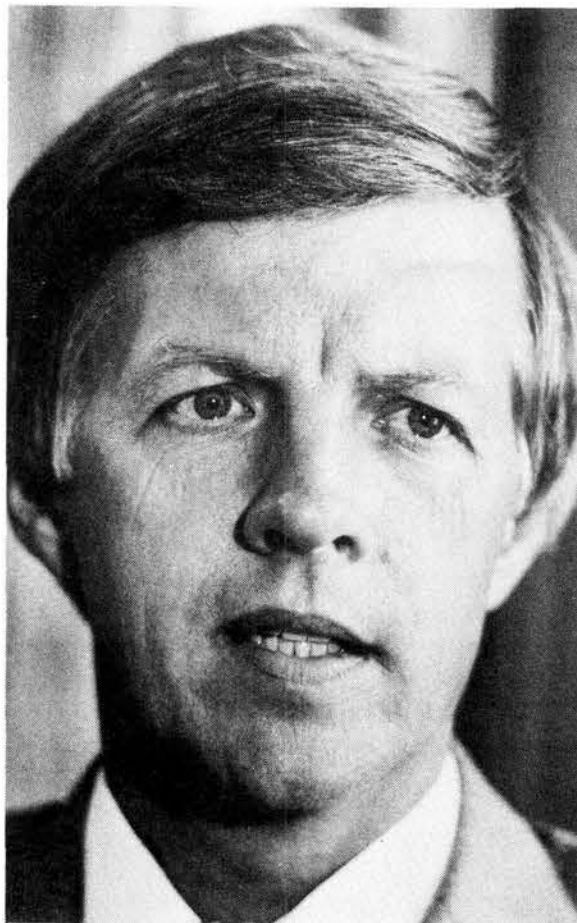
"After all, designators are just words; the Sandia connotations of those words are very different from what we may have learned somewhere along the way. Viewed in that light, designators should look less like an albatross and more like what they really are — a kind of shorthand notation for describing where an employee is in a distribution of top-notch people."

In a sense, it's somewhat like curve grading. But the "Sandia curve" is very different from those most of us have experienced before; if placed in competition against a "world curve," ours would be right up at the top, comments Marv Torneby. The same would be true if we were competing with college graduating classes, he says.

The ultimate performance ranking — the decision on a staff member's relative contribution in comparison with peers — reflects the collective judgment of management in his or her organization (through director level), Marv observes. "It's not just the judgment of one's immediate supervisor; some employees may not understand that," he says. "Contributions of employees are rated at successively higher organizational levels, then merged, based on the combined judgments of all supervisors involved."

Factors Combined

Upon what does a judgment of relative contribution depend? Management looks at not just one or two characteristics, but a combination of many: creativity and innovation; job-related knowledge and skill; quality, quantity, and reliability of work completed; specific abilities/techniques used; ability to work with others; communication skills (written and oral); effective/efficient use of time; analytical skills; work habits and dependability; and acceptance of direction, policy, and procedures.



LEE BRAY (30): "The Labs hires the top talent in the country . . . Sandia staff people are achievers, any way you look at it."

Just as the evaluation system is not carved in stone, neither is an individual's performance rating. "One purpose of the annual review is to establish the best *current* estimate of an individual's performance," says Lee Bray. "It's not a permanent judgment. Performance may vary from year to year, and we think the review process is responsive to these kinds of changes."

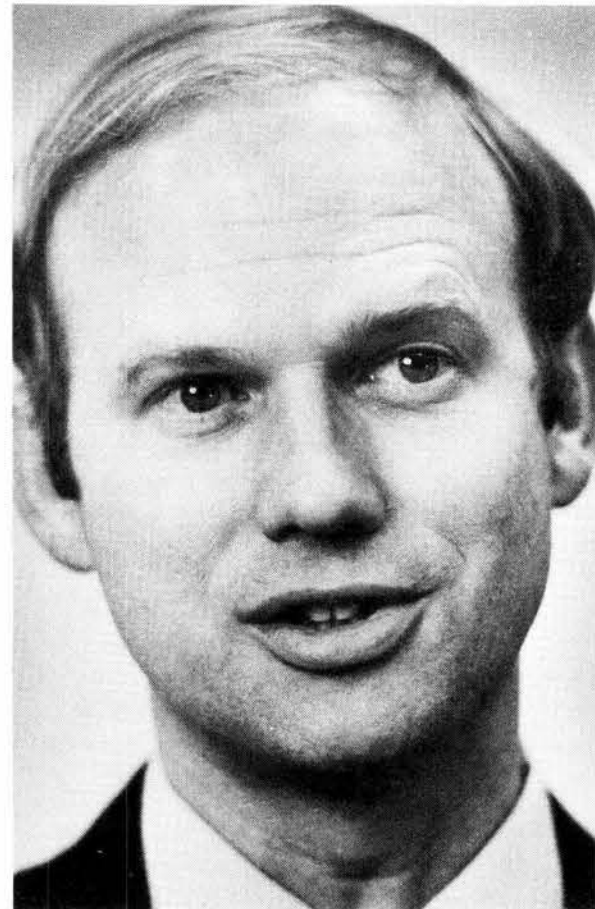
The performance review process results in an appraisal meeting between supervisor and staff member, usually in July or August each year. It's a key part of the system, because here's where an employee learns how management views his or her performance on the current assignment. It's a chance to talk about possible ways to improve one's contribution, and to get the low-down on the organization's goals and objectives. The learning isn't all one-sided by any means; here's an opportunity to let your boss know how you feel about your job, to talk over any job-related concerns or questions you may have, and to discuss your Sandia career-development plans.

"The appraisal meeting is an important part of the system," Lee points out, "and we hope it's a continuation of informal talks held all through the year. The dialogue should focus on developmental concerns. It's a golden opportunity for two-way feedback. Supervisors, of course, are charged with telling staff members how management views their performance. But more importantly, this is a chance for two people to exchange perceptions on how they see the work at hand, and how they feel about that work. It's a time to explore changes that may benefit both the employee and the organization in which he or she works."

"People are the Labs' most important asset," adds Pace VanDevender (1200). "And let's face it — for many, their work and how it's valued by their supervisors are key factors in defining their self-concept. A relationship of mutual respect and trust between a person and his or her supervisor is essential for the process to work well. So it's important that supervisors spend a lot of time *listening* at those appraisal meetings. That's the only way they'll learn about the individual on the other side of the table."

Listening Difficult to Do

Listening, for most of us, is a very difficult thing to do, Pace points out, because we learn early on that to compete in the real world, we need excellent verbal skills — and most of us have been practicing them for years. However, he says, listening during a conversation is the key to our understanding of other people. "If a supervisor takes time to listen, he or she will hear things such as 'I'm feeling burned out and need a job change' or 'I'm having some outside problems that affect my work,'" Pace says. "Sometimes the supervisor may even hear a figurative cry for help. Development concerns surface at such a



PACE VanDEVENDER (1200): "A relationship of mutual respect and trust between a person and his or her supervisor is essential for the process to work well."

time, and that's why these meetings are absolutely critical." (An outsider agrees; see "On Communication and Self-Evaluation.")

It's obvious, then, that division supervisors become a very important cog in the evaluation wheel, since they, for the most part, are the ones who conduct appraisal meetings. Management realizes the importance of this activity and encourages supervision to spend the preparation time necessary to make the meetings thoughtful and productive, notes VP Orval Jones (5000). "Similarly, an employee

(Continued on Next Page)

On Communication and Self-Evaluation . . .



Albuquerque psychologist Emmelienne Schreiner believes that open communication between supervisor and staff member is vitally important. She told us that the evaluation appraisal talk should be "a rewarding experience — a sharing of ideas."

But supervisor/staff communication shouldn't just be a once-a-year thing, she continues. "Effective communication is ongoing," says Schreiner. "Then there aren't any big surprises when the annual evaluation meeting rolls around."

Open communication leads to flexibility, both for supervisor and staff member, Schreiner continues. Then some other factors fall into place naturally: a feeling of fairness, a spirit of cooperation, and highly motivated people. She points out that U.S. industry loses \$10 billion a year because of poor social interactions, which result in poor at-

tendance, lower productivity, etc. Lack of open communication in the workplace contributes to that high price, maintains Schreiner.

"Supervisors should see themselves as communications enablers," says Schreiner. "They're the ones who think through and explain to employees what's important about jobs. Then it's the responsibility of employees to meet or exceed those criteria."

In answer to another question about judgments, Schreiner said, "It's important to remember that nobody knows us as well as we know ourselves. It follows, then, that we should always maintain the final judgment of ourselves."

"We have to self-evaluate — it's healthy, it's necessary; if we don't [self-evaluate], we feel helpless. If we honestly feel we're giving it our best shot — whether 'it' is work, family relationships, whatever — there's a resulting self-satisfaction, a kind of inner calm, that money can't buy and that external judgments can't put down."

Performance Evaluation Calendar

Performance evaluation begins in March each year, and the process is completed in September. Just in case you're not sure what happens when, here's a reference guide:

- **March**
Supervisors receive a one-sheet form for each employee. The front side of the form is a data sheet used to describe employee accomplishments, notable achievements, etc., for the past year; the back side is used for evaluation.
- **March-May**
Data sheets are prepared. Employees have the opportunity to prepare a draft, listing accomplishments during the past year for which they were responsible. Once the draft is complete, employee and supervisor meet to review and discuss what was done during the year to assure (and agree on) an accurate summary that will appear on the final form.
- **May-June**
Directorate review process takes place. A working copy of the final "description of accomplishments" agreed on by employee and supervisor is used throughout the review by successive management levels. When the review is completed, working copies — with comments and notes from higher management attached — are returned to immediate supervisors, who summarize meaningful findings in a written evaluation (back side of form).
- **July-August**
Supervisors have appraisal meetings with employees to go over written evaluations, which reflect judgments developed by consensus during the review process. The meetings are a key part of the evaluation system (see main article).
- **September**
Employees receive salary notification from supervisors.

Though performance review formally runs from March to September, it's really an ongoing process. The communication that's firmly established between employee and supervisor during the formal part of the routine makes it a lot easier to discuss problems and changes the rest of the year.

Continued from Previous Page

Performance Evaluation

should take time beforehand to think about his or her questions and concerns, and then to express them in the meeting," he adds. "I myself like to call employees a day or so ahead to let them know the meeting is coming up, so they'll have the opportunity to think about what they might want to discuss." With proper preparation, Orval says, frank and objective exchanges result in learning, understanding, and respect.

Ralph Bonner had a final comment: "Our main objectives here are to come up with the fairest possible method of judging the relative contributions of employees to the laboratories, and to establish a valuable communication network between supervisors and staff that can have tremendous payoffs." •PW



eCP
the need continues



TRAPPED: The toughest thing for an abused wife to learn is that she doesn't just have to stand there and take it. Exposing violence at home is a tough step to take, even if it's only semi-public. "Very respectable people in the community abuse their spouses — and hide it better," says a Sandian who extricated herself, with a little help from a shelter and her co-workers, from recurrent abuse.

Solved: A Case of Domestic Violence

"Domestic violence doesn't occur only among high school dropouts," she says. "Just because you work at Sandia, just because you have a good educational background, doesn't mean these things can't happen."

She should know. She still works here, safely anonymous. Yet, still echoing in the attic of her mind is the violence that swirled around her. From her early days as an abused child, through getting kicked in the stomach when she was seven months' pregnant, to the day four years ago when her husband got out a gun to shoot her . . .

She compares herself then to a drowned rat — one of those in psychologist Kurt Richter's landmark experiment where frequent electroshock punishment made rats "learn there's nothing you can do to get out of the situation," she says, "and so when they were dunked in water they didn't even bother paddling around. They had learned to be helpless. And they sank."

She wasn't always passive. But when she dared to block her husband's frequent punches, he got furious. "I got my hardest batterings when I stood up for myself," she remembers. "He'd get so infuriated he'd pick up things with his other hand and hit me. And break windows. Or he'd kick me. So I learned to whimper and beg just to try to soften the beatings."

She also dialed 911 many times. But she never made a real connection there. "The police and the judicial system wanted me to 'work out the relationship' because 'he didn't know what he was doing' and I 'could have provoked it,'" she says regretfully. "And, even when I was hospitalized, he lulled everybody into thinking that he wouldn't do it again because he said he was sorry. And he brought flowers, cards, candy — the whole works."

She knew better than too, but she tried to hope the next lull between drunken bouts of beatings would be a little longer — perhaps a week or two. But the vortex only swirled faster.

"Even after he ran down the road after me firing a gun — with several people watching — he was arrested only for disturbing the peace, disorderly conduct, and discharging a firearm in my direction," she recalls glumly. "He spent one night in jail and was fined only \$300."

She fled that night. Not for herself that much, as for her three-month-old son. It was her breakthrough. She knew her husband and his brothers would come looking for her. The refuge: a battered women's home near the Base run by the Albuquerque Shelter for Victims of Domestic Violence, a United Way agency.

Once she was behind the locked walls, with an unpublished address and a hotline to 24-hour security, she was safe. Then she pressed charges.

"The shelter immediately made me feel competent and in control," she states firmly. Why? Num-

ber one: It was a haven; she was invisible and couldn't be hurt anymore. She knew the next morning would be free of the deep tumble into a well of guilt from his usual, fumbling, hungover "I'm sorry." Two: Legal counseling was available and she made use of it, following up with three types of restraining orders against her husband. Three: It gave her moral support and therapy. "No one said I deserved abuse or provoked it," she says.

"There, for the first time in my life I heard that I didn't have to put up with abuse," she says, eyes open wide. "I never heard that as a kid. As an abused wife, I was too numb to believe that I could do anything but endure."

And, the home gave her a long "here's what you can do" list. One of them was to get a divorce from her husband. It sounded just right.

There was no time limit for her stay at the home. No charges for her room. She willingly paid for

The Employee Contribution Plan (ECP) can hit home. Contributions to United Way through ECP help not only the indigent in our city and our state, but can change the lives of some Sandians in need. The ECP campaign takes off from Oct. 6 to Oct. 10. Sandia's plan is an easy way to contribute to United Way. The LAB NEWS will continue to cover several agencies — and Sandia aid recipients — in coming issues.

daycare. She had her income with which to chip in for groceries. And she had her job at Sandia, which made it easier to hang on to the one thing that was going right. A reminder that there was some control, some sanity. A distraction.

"It's pitiful when I think about it, even now," she says. "It's hard to be a good worker when you go home and get kicked around." But Sandians did their share in helping her through her fears and embarrassment. Fellow workers had helped her find the shelter, where she stayed for three weeks. "My department manager helped me get my stuff one day during lunchtime," she says gratefully. Her supervisor was tactful about her leaving early for medical treatments, meetings with lawyers, court dates. Others helped with some other details, such as moral support, babysitting, and care of pets.

And she received great support from the Security Police. "My ex tried to come on Base to get me with a loaded gun," she says. "The SPs never even insinuated that it was I who stepped out of line. They understood why I felt vulnerable driving my own car to work."

She leads a normal life now. Psychotherapy has tapered off. She's trained in the martial arts, both soft and hard forms. Articulate and thoughtful, she seems tough as nails. She'll make it. • ID

Supervisory Appointments

JIM McQUEARY to section supervisor (lieutenant) in Patrol Division - South 3435, effective June 1.

Jim joined the Labs in October 1982 and became a full-time inspector in December 1983. He is a member of Sandia's STOP (Special Tactical Operations Personnel) team. Jim served six years with the Marine Reserve and studied criminology at the University of Albuquerque. Before coming to Sandia, Jim worked in the security field for government and private industry.

In his spare time Jim enjoys running, playing racquetball, and lifting weights. Jim and his wife Kathy have one child and live in the NE Heights.

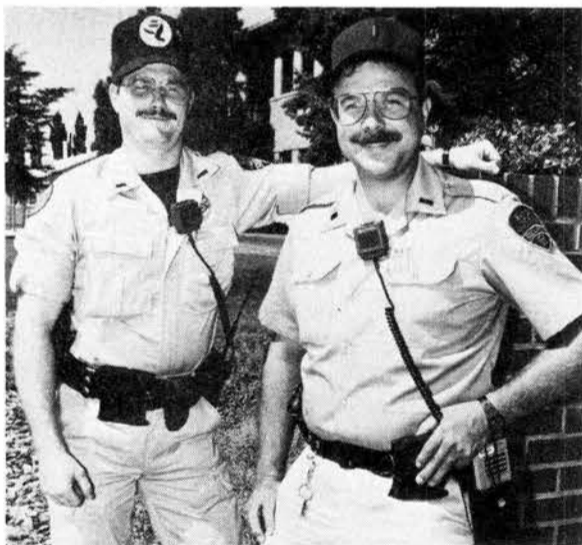
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KEITH CHAVEZ to section supervisor (lieutenant) in Patrol Division - South 3435, effective June 1.

Keith joined the Labs in October 1981 and became a full-time security inspector in November 1982. He has been a member of Sandia's STOP (Special Tactical Operations Personnel) team since it was formed in February 1983. Before coming to Sandia, Keith attended the NM Department of Corrections Academy and became an officer in the NM Department of Corrections. He is certified as a firearms instructor. Keith attended UNM under an athletic scholarship in track and cross-country running.

Keith has been involved in Sandia's Security Pistol Team, winning trophies and awards. He won the Federal Category, Master Class, in the National Revolver Championships in Des Moines, Iowa, in 1985, which led him to a place among the world's top 100 shooters at the NRA National Action Pistol Tournament (Bianchi Cup) held this spring at Columbia, Mo. Keith was Sandia's Security Inspector of the Year in 1984 and 1985.

In his spare time, Keith enjoys writing and golfing, in addition to pistol shooting competition. Keith and his wife Carol have four children and live in the NE Heights.

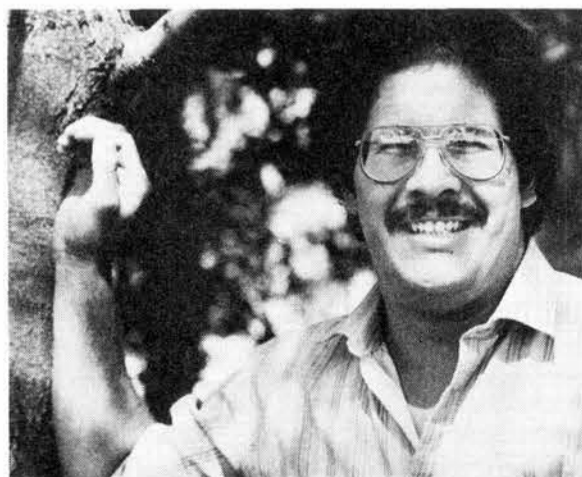


JIM McQUEARY and KEITH CHAVEZ (both 3435)

* * *

JOE COSTALES to supervisor of Custodial Section I 3426-1, effective May 1.

Joe joined the Labs in May 1980 as a custodian. After six months he joined Mail Services as a clerk. In 1982, Joe became a stockkeeper in General Stores. He joined the Nuclear Control Division in 1985 as a materials handler where he worked until

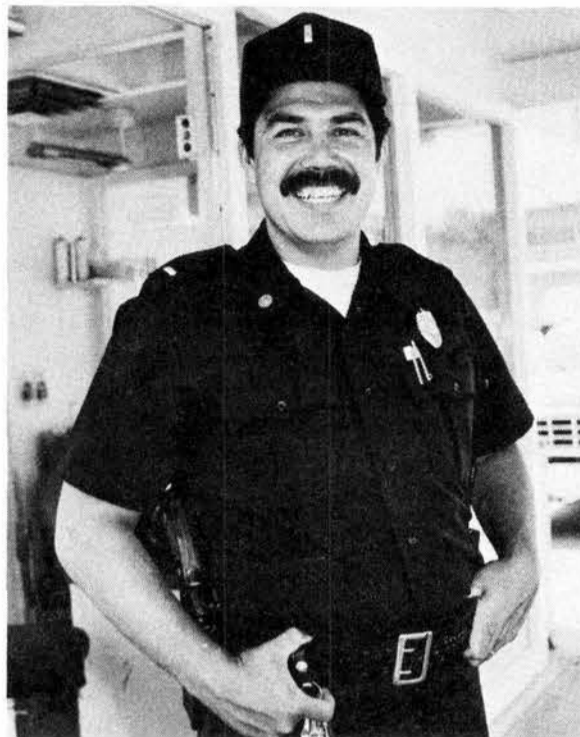


JOE COSTALES (3426-1)

his supervisory appointment.

Joe served in the U.S. Army Reserve from 1976 to 1980. In his spare time, Joe enjoys fishing, and playing softball and basketball. He and his wife Debbie have four children and live in the NE Heights.

* * *



SCOTT SANDERVILLE (3435)

SCOTT SANDERVILLE to section supervisor (lieutenant) in Patrol Division - South 3435, effective June 1.

Scott joined the Labs in December 1983 as a full-time security inspector in Special Tactical Operations Personnel (STOP). He was the program director of the Phoenix office for the Institute for Career and Vocational Training (ICVT) before coming to Sandia. Scott was involved in developing programs for Indian youth at ICVT and worked with the Billy Mills Indian Youth Leadership Conference in developing sports programs. Before working for ICVT, Scott spent four years with the National Indian Youth Council.

Scott has an AA in business administration from Mesa Community College and is presently working on a BBA. He is a member of the Blackfeet and Klamath tribes and is involved in tribal activities.

Scott's spare time interests include playing bas-

ketball, running, gardening, fishing, hunting, and backpacking. He and his wife Amy have three children and live in Rio Rancho.

* * *

TOM PEREA to supervisor of Nuclear Weapon Complex CAD/CAM Integration Division 2811, effective June 16.

Tom, an Albuquerque native, joined the Labs in December 1972 as an OYOC participant. He attended Stanford, earning an MS in EE. Before attending Stanford, he received a BS in EE from UNM. When Tom returned to Sandia from Stanford, he joined an advanced development group where he assisted in the development of several prototype components for a proposed earth penetrator. In 1976, he moved into electronic subsystems where he was responsible for components in the W-86 and B-83 systems. In 1982, he became a member of Command and Control Division 2335. He was project leader on the T1563 automated PAL controller and the T1565 Headquarters Code Processor projects.

Tom has taught an introductory microprocessor lab and a transistor circuit design and analysis course in Sandia's INTEC and Out-Of-Hours programs. He has also taught in the Sandia/APS Summer Science Program. Tom has served on Sandia's Hispanic Outreach Committee. He is a member of IEEE. Tom and his wife Carla live in the NE Heights.



TOM PEREA (2811)



WITH DEAN IRVIN (ret.) looking on, President Irwin Welber recently signed a statement reaffirming Sandia's support of the National Guard and Reserve programs. Labs employees in the Guard or Reserve are granted leaves of absence and differential pay for military training each year. Dean is state chairman of the N.M. Committee for Employer Support of the Guard and Reserve.

Take Note

Beginning this fall, Bill Brinkman (1000), Pace VanDevender (1200), and Tom Cook (20) will be on the advisory board of a new refereed journal, *Defense Research Review*. The classified journal, to be issued quarterly, will publish research articles, reviews, comments, and letters contributed by scientists in the weapons community. *DRR* is a cooperative effort in research communications with Los Alamos and Lawrence Livermore national laboratories. Initially, the journal will be produced by conventional typesetting but is slated to become fully computerized at a later date.

* * *

New Mexico has the nation's second highest rate of suicide among its youth, especially among the Native American population. Youth suicide is the No. 2 killer of young people age 15-24 in the U.S.

In an effort to raise funds to do something about the problem, the New Mexico Chapter of the National Committee for Youth Suicide Prevention is sponsoring an "Entertainment Extravaganza" benefit at the Albuquerque Little Theatre on Aug. 8. Tickets for the benefit are \$25 general admission and \$50 for Gold Circle tickets, all tax-deductible. Admittance to a pre-show reception is included in the cost of the Gold Circle tickets.

Sandians participating in the benefit are Colin Selleck (1531), classical guitarist for the Gold Circle reception; Gary Shepherd (2614), stage manager; Merry Peterson (2612), box office and seating; and Chris Korbin (1531), backstage volunteer organizer. Gary's wife Shelly is the Secretary for the New Mexico Chapter.

Included in the benefit program are Bill Daily, Frank Larrabee and friends, Patricia Tate (performing the famous "Dance of the Seven Veils"), the Imitations, and special surprises.

For more information on this event, or to make a donation, contact Aleta Batt, State Coordinator, National Committee on Youth Suicide Prevention, New Mexico Chapter on 836-8067.

* * *

The National Atomic Museum has a new exhibit scheduled to open Aug. 14. It is on the use of nuclear energy to power satellites, rockets, missiles, and aircraft. The exhibit will detail the history of the various attempts to use the heat generated from atomic fission to augment the engines of rockets that explore deep space or continuously airborne jets and missiles, and will depict the many triumphs of using the decay heat of "atomic batteries" that are today used to power satellites exploring the solar system. Scheduled to speak at the event is Harrison Schmitt who will make a presentation at 10 a.m. entitled "Taking Atoms to the Moon and Beyond." He was the Lunar Module pilot and scientist for Apollo 17 (the most recent Apollo mission to the moon) and the last man of 12 to walk on the moon.

* * *

UNM will again offer an Entrepreneurial Engineering course (ME456) in the fall semester. Several Sandians with backgrounds in engineering or scientific disciplines have taken the course; some have developed business plans, with class assistance, for companies they have contemplated starting. Staff members with technical or business backgrounds who have in mind possible business developments are especially invited to enroll. The class meets on Thursdays, beginning Aug. 28, 6:30-9:30 p.m. in Rm. 218, Mechanical Engineering building. The class works in teams, starting one to three new businesses each term. Enrollment must be completed in Student Services Building Registration Center (277-5548) by Aug. 29, and costs \$127.50 for the three-unit class. For more information, call Prof. Bill Gross at 277-6297.

* * *

Sandians are invited to attend the first rummage sale to benefit All Faiths Receiving Home sponsored by All Faiths Auxiliary on Aug. 16 from 9 a.m. to 4 p.m. at TVI (302 Yale SE). Many Sandians have already donated to this sale and more donations are



FOUR SANDIANS and the daughter of a Sandian appear in the Albuquerque Civic Light Opera's current production, "1776," a musical chronicling the events preceding the signing of the Declaration of Independence. They are (clockwise, from center): Amy Lloyd (daughter of John Lloyd, 5172), who plays Thomas Jefferson's wife, Martha; Duane DeWerff (5163), congressional custodian Andrew McNair; John Brabson (5255), Declaration signatory Dr. Josiah Bartlett; Wilson Brooks (1652), Thomas Jefferson; and Phil Mead (400), Ben Franklin. Surgery kept Dick Schwoebel (1800) from playing the role of John Dickinson. Performances at Popejoy Hall are scheduled this weekend (Friday and Saturday at 8:15 p.m. and a Sunday matinee at 2:15 p.m.); next week, the Aug. 8-9 shows are at 8:15 p.m.

gratefully being accepted. If you have something to donate or would like to help with the rummage sale, call Anne Nokes (wife of Dave, 5161) at 296-4448. Items can also be delivered to the sale location on Aug. 2 between 9 a.m. and 2 p.m.

* * *

Looking for a seedy experience? Amateur, intermediate, and experienced gardeners can pick up some valuable gardening tips from the experts at the 4th Annual Master Gardener Educational Fair to be held Aug. 9-10, 10 a.m.-4 p.m., at the Albuquerque Garden Center (10120 Lomas NE). The free fair will include lectures, exhibits, displays, working demonstrations, and a plant clinic. There will be giveaways and refreshments. Scheduled experts include Carol Sutherland, entomologist, NMSU, "Know Your Buggy Friends (and Enemies)," Sat. at 10:30 a.m.; Mike English, "Should I or Shouldn't I Use Pesticides?," Sat. at 1:30 p.m.; Richard Lee, NMSU, "Weeds," Sun. at 12 p.m. Robert Cox, Bernalillo County Extension Agent, will also give a presentation on Sun. at 2 p.m.



Here are a couple of current volunteer opportunities for employees, retirees, and family members. If you would like more information, call Karen Shane (4-3268).

AMERICAN DIABETES ASSOCIATION is looking for a few volunteers: a board member and someone with PR skills to help with its November campaign. Most of the campaign press material is supplied by the national office, but a local PR coordinator is needed.

ASSOCIATION FOR RETARDED CITIZENS OF ALBUQUERQUE is a United Way agency that provides educational programs and group homes for mentally retarded people. It needs volunteers in three areas:

- banking and budgeting aides who would be willing to teach these skills to independent-living clients
- tutors who can assist moderately retarded adults to "write" their names or master a basic reading book
- companion/friend to telephone group home residents, to take them for a Coke or to a movie or on an outing, or to send them a birthday card.

Fun & Games

Golf—SWGA women turned out for the 9-hole tourney at Puerto del Sol on June 14. Net results were: Flight A: First place went to Minnie Shurick, second to Phyl White (5122), and low putts to Debbie Stephens (2832). Flight B: First went to Carmen Allen (5246), second to Teresa Mills (3724), and low putts to Dottie Castro (DOE/CIRD).

On July 12, the women sweltered at University North. Results were: Low net: first to Minnie Shurick, second to Reba Garrison (5122), and low putts to Alice Diefendorf (DOE/CU). Flight B: first low net to Lucy Gray, second to Diana Wilhelm, and low putts to Sherri Huffman (BAO).

* * *

Tennis—The Sandia Tennis Association (STA) will be sponsoring a Labor Day Tennis Tournament at the Coronado Club Aug. 29-Sept. 1. Tennis events include: Men's A and B Singles, Women's Singles, Men's and Women's Doubles, and Mixed Doubles. Prizes will be awarded to first and second place winners in each event. For more information, contact Teresa Schneider at 292-8017 or Marilyn Bange at 294-2741.

* * *

Football—The Sandia Football Association will hold an organizational meeting on Aug. 11 at the Coronado Club at 4:45 p.m. The association sponsors intramural flag or touch football of the minimal contact form. All interested team representatives and players are invited to attend, or contact Phil Federico at 4-8894 or Emil Kadlec at 4-1059 for details.

Welcome

Arizona

Garth Reese (2534)

Louis Weichman (2362)

Colorado

John Dillinger (3522)

Hawaii

Jeffrey West (2821)

Ohio

William Anslover (5311)

Cass Gowins (5144)

Mark Smith (5251)

Texas

Brian Christensen (5341)

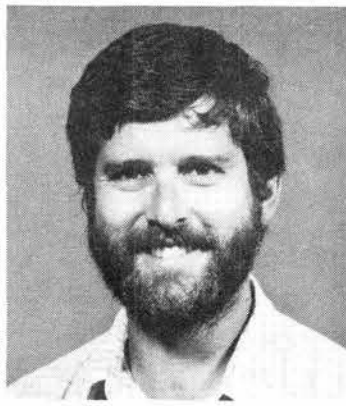
Washington

Robert Yiu-Lok Chiu (7133)

MILEPOSTS

LAB NEWS

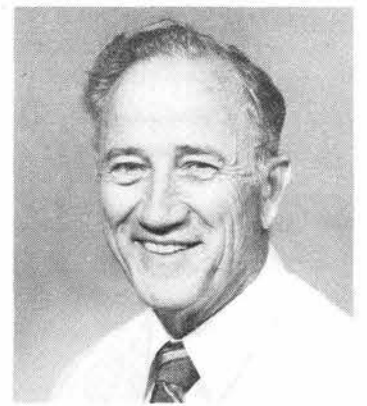
AUGUST 1986



Michael McGlaun (1531) 10



Steve Margolis (8363) 10



Albert Martin (7833) 35

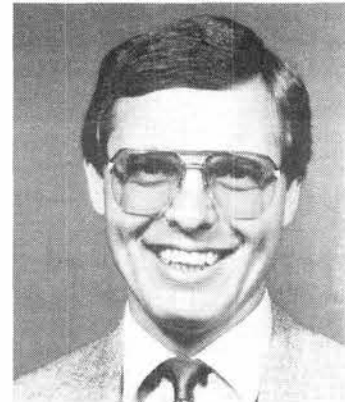


Bernie Vallejos (5122)

25



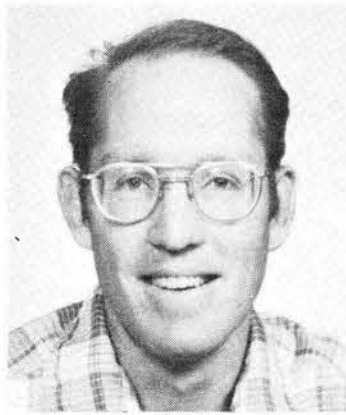
Hilda Hennessee (5310) 20



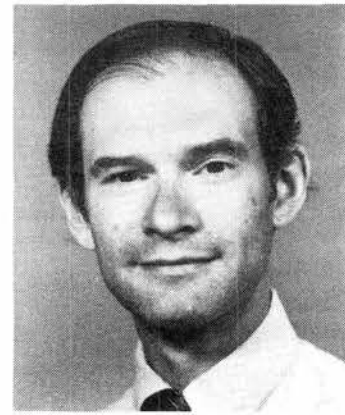
Paul Rosenkoetter (3723) 10



Randy Gummus (8182) 20



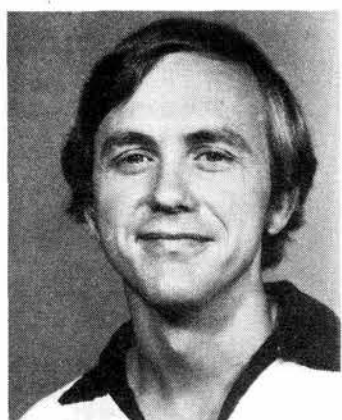
Dave Stimmel (8175) 10



Steve Weissman (1624) 10



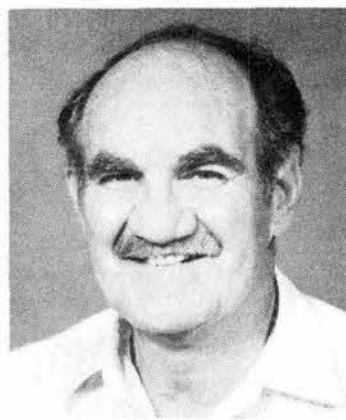
George Rafal (8257) 20



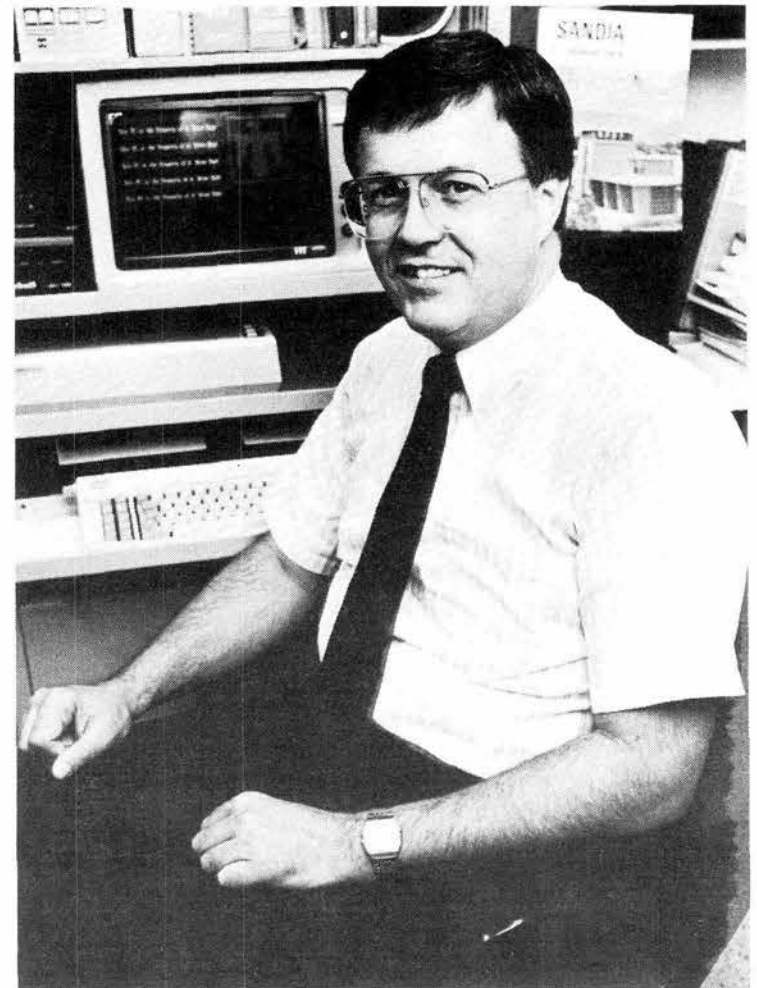
David Sanders (2144) 10



Jim Lathrop (8474) 20

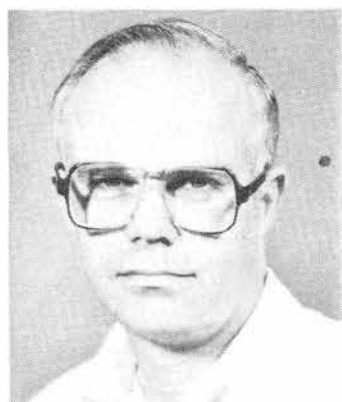


Leland Pierce (5245) 30

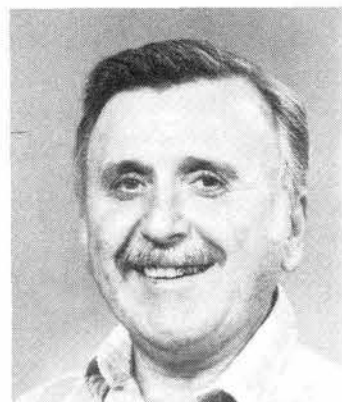


Brien Bopp (2857)

20



Bob Bickes (2515) 10



Ed Kociscin (2857) 25



Jay Grear (7232) 35

Deadline: Friday noon before week of publication unless changed by holiday. Mail to Div. 3162.

MISCELLANEOUS

TENNIS RACKET, Wilson 1200, 4-5/8" grip, medium weight, \$10. Rhoads, 298-6157.

FOUR TIRES, Ground Hawg, 12 x 16.5, mud and snow, paid \$135 new, asking \$75 ea. Schroeder, 869-2243 after 5:30.

REFRIGERATOR, Philco No-Frost, 16 cu. ft., \$150; Gibson gas dryer, \$75; freestanding electric fireplace, \$25 OBO. Jones, 881-6006.

GOLF CLUBS, men's size, 2-PW irons, 1, 3, and 4 woods, \$100. Harrison, 292-6856.

KING-SIZE WATERBED, complete with headboard, 12-drawer pedestal, padded rails, liner, new mattress, and heater, \$350. Berg, 898-2100.

PUPPIES, AKC Springer Spaniel, sweet-tempered, long ears, family pets or hunting dogs. Westman, 881-0471.

TABLES: wooden frame w/rich brown stain, glass top; coffee table, \$30; end table, \$10. Weiss, 821-8256.

REMODELING SALE, 36" pre-hung door, 15,000 BTU in-wall heater, 3" PVC pipe, 24"-wide insulation, 30" kitchen cabinet, Miller, 873-3450.

COKE MACHINE, 18-case, with cans, \$495. Hoover, 836-1032.

ROCKING CHAIR, cushioned back and seat, \$35. Carter, 293-6750.

MOTORCYCLE TIRE, new, Carlisle MT90-S16, \$60. Baca, 298-7748.

EXERCISE BOARD, \$65; brown divan (2) w/end table, \$245; 2 black swivel chairs, \$25; fireplace screen, \$13. Johnston, 294-5179.

STEREO CABINET, Mediterranean, 20" x 80" x 18"; Monterey gas wall heater, 16" x 66" x 8"; portable electric heater; misc. recessed Lightolier light fixtures. Ferguson, 266-4769.

CARTOP RACK, two 54" long on-roof bars with padded feet; 60" cargo tie-down straps, \$15. Schkade, 292-5126.

STUDENT VIOLIN, Suzuki, used one year, \$250; Rogers silver plate service for 8, \$175. Sanders, 298-4194.

BAR STOOLS, set of 4, 24" high, dark pine, arm rests, swivel, \$130. Vigil, 296-3590.

CAMPING TRAILER, single axle, icebox, water supply, butane oven, sleeps 4-6, \$800 OBO. Liguori, 256-3613.

WALNUT COFFEE TABLE and end table, \$25 ea.; Lawnboy push lawn mower, \$35. Maloney, 821-6661.

BUMPER POOL TABLE, balls, 2 cue sticks, \$45. Wright, 296-7670.

WASHING MACHINE, \$100; microwave, \$150; 10-spd., 24" bicycle, \$50. Cooper, 888-0967.

DOUBLE BED, firm, w/frame, rarely used, 3 sets sheets, bedspread, \$150; queen dual-control electric blanket, \$20. Moulton, 293-0373.

USED FENCING MATERIAL, 6' tall chain link roll and several 4' tall rolls; posts and accessories. Blacker, 298-0096.

REFRIGERATOR, bottom freezer, Sears, 16 cu. ft., icemaker, copper-tone, \$150. Caskey, 294-3218.

FLORAL SOFA and loveseat, loose cushions, tan w/green, rust, gold, beige accents; Frigidaire side-by-side avocado refrigerator/freezer. Westfall, 884-4526.

VIOLIN, full size, w/bow and case, good instrument for student or school, \$350. Jeffers, 299-7020.

PORTABLE PET CAGE, Sky Kennel Model #300P, 18" x 30" x 23" high, Jones, 296-3998.

DESK W/CHAIR, answering machine, pleated blinds, woven drapes, cash register, brass hall tree, assorted mirrors, reception chairs. Brown, 883-9629.

CAR STEREO SYSTEM, Panasonic AM/FM radio, Panasonic tape cassette, Clarion speakers, \$50/system or will sell individual components. Johnson, 884-8250.

COMMODORE PLUS FOUR COMPUTER, built-in word processing, spreadsheet, file management, graphics, and machine language software, still in box. Shortencarier, 292-3575.

COLT DIAMONDBACK 22LR, 6" vent ribbed barrel. DeHerrera, 298-6509.

BRICKS, approx. 1000, 10c ea.; 130

lb./cu. ft. cinder blocks, great mass for solar, 50c ea. Kolb, 281-1570 after 9.

DINING/DINETTE SET, round table 44", 4 round pedestal chairs, table is walnut color, chairs have upholstery and vinyl, \$125. Hovorka, 299-0224, leave number.

NEW STRAIGHT EIGHT Buick block, pistons, rings and pins, early 50s vintage, \$100. Tippy, 298-3758 after 5 Sat.-Sun.

ELECTRIC TYPEWRITER, Smith-Corona Coronet XL, w/case, 8 assorted ribbon cartridges, and correction tape cartridge, \$85. Womelsduff, 255-5028.

LAWN MOWER, Black & Decker 18" electric rotary, newly overhauled, \$85. Smith, 281-9360.

GIRL'S BICYCLE, Huffy "Sweet Thunder," 20", \$30; boy's bicycle, BMX, 20", \$25. Alexander, 291-8028.

SEARS COLDSPOT REFRIGERATOR, \$100 OBO; full-size mattress, \$50. Searls, 268-2946.

FURNITURE SALE (household consolidation): dresser, chests, sofas, overstuffed chairs, desks, dining set, mirrors, trunk, lamps, picnic table, more. DeWerff, 289-1029 evenings, weekend.

MINIATURE DACHSHUND, red male puppy, 6 wks. old; Appaloosa horses from weanlings to breeding stud, race or show. Ashbaugh, 1-384-2671.

14.2 CU. FT. REFRIGERATOR, avocado color; Kitchen-Aid dishwasher, harvest gold, \$225; Smith, 281-2940 after 5.

COUCH AND TWO CHAIRS, tan, \$130; light green carpet, 3 pieces w/pad, \$120; microwave oven, \$90. Nissen, 299-9305.

18' X 9' WALL TENT w/porch and floor, used one time, \$170; top line reversing garbage disposal w/warranty, \$80. Wright, 281-5828.

BUMPER POOL TABLE, accessories included, \$45. Anthes, 884-3644.

KING-SIZE BED, \$225 (free bedding); cedar chest, \$75; sofa bed, \$325; stereo equipment; TV table; miscellaneous. Hill, 836-1006.

MIXING CONSOLE, BiAmp 1282 w/road case; horn-loaded PA cabinets, EV SH15-2; miscellaneous Shure/EV microphones; Atlas boom stands, cables, etc. Rathbun, 888-3344.

MICROWAVE, 1/2 cu. ft., new, \$75; bicycle, 12-sp., new, men's, \$80. Walker, 821-5938.

TWO BAR STOOLS, oak, \$75 ea.; table w/leaf, 4 chairs; coffee table, small desk and chair. Bertin, 296-8255.

RECLINER, dark green vinyl, \$40 OBO. Matlack, 256-7371.

LEROY LETTERING SET, 80 to 500, \$50. Chorley, 296-1454.

KITCHEN TABLE, brown oval w/leaf, \$35; infant/child carseat, \$25; glass shower door, \$15. Sutherland, 345-1183.

MISC. ITEMS, garage sale: Wyoming Academy area, Aug. 2, 8 a.m.-3 p.m. Bailey, 821-2471.

HOBIE CAT 16', '78 model w/fully windowed "flamer" sail set, trailer, and all optional equipment, \$2350. Snelling, 294-5751.

TWO HOUSE CATS, free to good home, male and female, declawed and neutered, good house pets. Taylor, 822-0637.

STORAGE BUILDING, metal, 4' x 6', \$20. Rosenberg, 296-1346 after Aug. 3.

FERRETS, 7 weeks old, tame, \$40. Jarrell, 281-9576.

SOFA, light gold cotton velvet w/6 soft-pillow back cushions, never used, \$400. Ahr, 294-8736 after 5.

GARAGE DOORS, two, 8' x 7', 6 panels, metal, all hardware, \$35 ea. Gibson, 298-9170.

GREENHOUSE PANS, galvanized, 2' x 3' x 2" deep, 3/\$16. Moss, 298-2643.

VINCA GROUNDCOVER, 1 gal. pots, 50c ea. Guidotti, 884-7594.

REFRIGERATOR/FREEZER, Whirlpool; complete queen-size waterbed w/drawers and headboard; both less than one year old. Garst, 884-5176.

UPRIGHT FREEZER, 15.8 cu. ft., Sears, \$125, you move; Weber barbecue cooker, \$12. Mason, 299-2836.

SHOPSMITH MARK V, \$1300 OBO. Levin, 884-4773 daytime, 897-7145

evenings and weekends.

TRAVEL TRAILER, 20', '76 Roadrunner, sleeps 5, gas/electric refrigerator, furnace, stove, shower, toilet, \$3200. Scott, 294-7183.

TWO-MAN RUBBER RAFT; two ornate cast iron support columns w/6 angle brackets; storm door, screen door. Switendick, 255-1003.

GOLF CLUBS, irons, 2-P, Browning TR600, \$75. Wrobel, 881-4491 before 5.

FRIGIDAIRE BUILT-IN OVEN and burners, good for cabin use, \$55; folding door, 76" x 36", \$12; old steamer trunk. Baczek, 255-3429.

HOME WEIGHTLIFTING SET, DP Gympac w/bench, \$200. Attermeier, 293-2505.

GOLDEN RETRIEVER PUPPIES, AKC registered, 6 weeks old, \$200. Morrison, 298-0347 or 294-6407.

MATERNITY CLOTHES, all seasons, size 8/medium, approximately 15 tops, 13 pants, 3 shorts, 4 dresses, entire box \$100. Beckmann, 296-1829.

DOUBLE BED and matching nightstand; carburetor, intake, and exhaust system from '73 Ford F250 w/390 V8. Zirzow, 294-7296.

CANNING JARS, assorted sizes. Mikelsen, 881-3921.

WOOD-BURNING STOVE, Englander Model 18P, 20" x 30" x 19", 230 lbs., heats 1000 sq. ft., never used, \$160 (\$250 retail). Holmes, 292-0898.

STEREO COMPONENTS: turntable, cassette deck, amp., speakers, \$50; 2 pr. adult X-country skis, \$10; Prinz enlarger, \$25; all OBO. Ball, 344-4373.

BROYHILL TRADITIONAL SOFA, off-white, 90", tufted back, reversible seat cushions, skirted base, \$350. Ratzel, 298-7167 after 6.

FOUR RADIAL TIRES on Chev. truck rims, five-hole, \$65; '73 Datsun 240Z engine, AT, Stahl headers, \$160. Silva, 255-3723.

HORSE TRAILER, '71 Lane, holds 4 horses, \$1700. McEwen, 281-1873.

CLOTHING, TOYS, books, typewriter, etc., at garage sale Sat., Aug. 2, 9-3, 9709 Avenida de la Luna NE. Mora, 821-6759.

TRANSPORTATION

'80 SUZUKI GS850G, 16K miles, Vetter fairing, stereo, 2 helmets, 2 extra tires, \$1800 OBO. Grant, 296-5265.

'79 PLYMOUTH HORIZON, 4-dr., 4-sp., 65K miles, new struts and battery, \$1200. Ennis, 298-3631.

'83 OLDSMOBILE Custom Cruiser. Lovato, 897-2917.

'74 CHEV. Monte Carlo, radials, PS, PB, PW, tilt wheel, Blaupunkt AM/FM cassette stereo, \$1200. Harrison, 292-6856.

'86 RED NISSAN PICKUP, factory warranty, low mileage, tinted windows, stereo. Scheibner, 268-0344 after 5.

'82 BERLINETTA CAMARO, loaded, AM/FM cassette, new brakes, good mileage. Weber, 268-0344 after 5.

'78 PLYMOUTH HORIZON, low mileage, AC, stereo radio. Gutierrez, 821-8476.

'80 VOLVO GLE, sun roof, 5-sp., new tires and shocks, 55K miles, \$6800. Hogan, 898-7990.

'86 NISSAN 4X4 PICKUP, light blue, short bed, 22 mpg city, 25 highway, \$9300. Waite, 867-5953.

'81 YAMAHA YZ 465 DIRT BIKE, never raced, includes helmet, boots, and leathers. Hoover, 836-1032.

FJ1100 YAMAHA, 3K miles, Dynojet, Vance and Hines, Fiamm, \$3350. Baca, 298-7748.

'67 ROVER TC-2000, classic, 4-dr. sedan, rebuilt engine, spare parts available, \$1150. Hartenberger, 281-1452 after 6.

'77 COLT, 4-sp., AC, stereo cassette, 106K miles, \$750. Clark, 292-1495.

LASER SAILBOAT w/trailer, \$950. Scott, 294-8627.

'74 DODGE CHARGER, 80K miles, new tires, 2-dr., AT, V8 engine, \$700 OBO. Keddie, 836-4324.

'81 BUICK RIVIERA, fully loaded, electric sunroof, 35K miles, transferable no-deductible 50,000, full warranty. Arana, 299-1214.

'71 INTERNATIONAL TRAVELALL, AC, PS, PB, 85K miles, \$1000. Neau, 345-9345.

'53 FORD F-100 PICKUP, needs paint, most body work completed, \$900

OBO. Blacker, 298-0096.

'79 HONDA ACCORD, AC, PS, AM FM cassette, new tires, \$1000. Casaus, 867-5785.

'68 MUSTANG FASTBACK, 289 V8, AT, PS, no rust, no Bondo, \$2000 OBO. Konopka, 296-4582 or 292-7278.

'81 TOYOTA 4X4 PICKUP, short bed w/camper shell, 50K miles, AM FM stereo/cassette, push bar tube bumper, \$5000 OBO. Lucero, 294-2546.

'74 CHEV. BLAZER, V8, 4-WD, PS w/Comfortilt, luggage rack, AM FM, front & rear towbars, sunroof, \$2700 OBO. Geer, 836-2748.

'72 OPEL GT, new AM FM tape deck w/twin speakers, \$3000. Barnaby, 265-4353.

'72 MAZDA RX-2, new paint and tires, needs carburetion tuneup, \$700. Glauner, 275-0108 or 299-0277.

'84 SPORTSTER, \$3900; '76 Gran Marquis, \$1800; '74 Gran Torino, \$800; '74 Honda 550 4, \$600; '69 Mach-1, \$1500. Leonard, 255-7725.

'83 OMEGA, 4-spd., AC, 35K miles, cloth seats, new tires, one owner, maintenance records available, \$3950. Rainhart, 292-2813.

SAILBOAT, San Juan 21, motor, trailer, sails, extras, \$5800 firm. Andersen, 294-8624.

'67 VOLVO 122S, 2-dr. sedan, \$1500 OBO. Anthes, 884-3644.

'76 AUDI FOX, AT, AC, 4-dr., new tires, \$975. Foster, 281-3975.

'57 CHEV., ready to drive, no dents, make offer. Pierce, 299-2801.

BICYCLE, men's 10-sp., \$50. Ystesund, 256-3297.

'79 MITCHELL mini-motorhome, Ford 460, extras. Reuter, 884-8347.

'71 CHEV. NOVA, 90K miles, one owner. Collins, 292-0495.

BICYCLE, 10-sp., large frame, 12 years old, trade for smaller bike of similar quality. Boslough, 294-3907.

'67 BUICK ELECTRA, 4-dr., one owner, 112K miles, \$400. Shipley, 296-5377.

'81 TOYOTA CRESSIDA, AC, AT OD, cruise control, sunroof, AM FM cassette, trailer hitch, more, under Bluebook at \$6600. Lawrence, 296-3058.

'79 FIREBIRD, Small V8, AC, PS, PB, new tires, \$3600. Otero, 293-4462.

'70 FORD TORINO COBRA, 429, 4-spd., bucket seats, AC, PS, original owner, 90K miles, Lis, 822-1189.

'77 BUICK LeSABRE, 4-dr., white, 60K miles, one owner, \$2500 or trade. Rees, 821-2256.

TOURING BICYCLE, Bertin 61 cm., upgraded, many extras include spare components and tools, more than \$1100 invested, sell at \$475 OBO. Rathbun, 888-3344.

'85 SUNSTREAM MOTORHOME, 27', rear double bed, split bath, sleeps 7, most options, triple air, below NADA book. Calocci, 822-0371.

'73 VEGA HATCHBACK, manual transmission, one owner, rebuilt engine, new parts, seat covers, records, \$500 OBO. Lambert, 344-9012.

'68 VW BUG, new battery, \$400 OBO. Woodall, 299-6729.

'78 HONDA ACCORD CVCC, 5-sp., AC, AM FM, new interior, white, \$2300. Gubbels, 884-3711.

'77 HONDA ACCORD HATCHBACK, manual transmission, AM FM cassette, one owner, \$2500. Maish, 898-8027.

'76 SUBARU 4X4, new engine in 1985, 15K miles, new front tires and alternator, \$1500 OBO. Pendall, 265-3008.

'66 PONTIAC LEMANS, \$700. Goin, 299-5271.

BAJA BUG, rebuilt engine, dual exhaust, KYB shocks, AM FM cassette, \$1000 OBO. Hueter, 299-7263.

'84 FORD RANGER, 4-cyl., 5-sp., fiberglass cap, wrangler tires, AM FM stereo, \$5000 OBO. Foltz, 291-0051.

'79 DATSUN 210, 2-dr., 55K miles, uses regular gas, \$1600. Manhart, 266-1068.

'81 TOYOTA TERCEL LIFTBACK, low mileage, AC, AM FM radio, \$3000. Keleher, 268-6286.

'79 FORD MUSTANG, AC, AM FM cassette, 4-cyl., manual transmission, Umbriano, 823-2629.

'79 CHEV. VAN, factory customized, AM FM, AC, cruise, icebox, table, couch, engine overhauled, trailer hitch, \$5700. Scott, 294-7183.

'78 MAZDA GLC, 4-dr., hatchback, 63K miles, \$850. Attermeier, 293-2505.

'76 FORD F150 1/2-ton pickup, 8-cyl., PS, PB, AC, AT, AM FM cassette, low mileage, \$2200. McEwen, 281-1873.

'73 FORD GRAN TORINO wagon, AT, AC, PS, PB, 351 V8, one owner, \$950. Zirzow, 296-2792.

'78 GMC 1-TON DUALY PICKUP, 350 engine, dual tanks, \$1800. Beals, 897-3424.

'67 TRAVELALL, 87K miles, 345 engine, AC, PS, PB, \$300. Taylor, 266-6837.

'84 CAMARO SPORT, cream color, loaded, less than 35K miles, \$7800 OBO. Huff, 296-1374.

'77 OLDS CUTLASS S, V6, AT, AC, PS, PB, one owner, \$1350 OBO. Ortiz, 299-3372.

'83 YZ490 Yamaha. Smith, 281-2940 after 5.

REAL ESTATE

COLORADO RIVER FRONTAGE, 4-1/2 acres between Del Norte and Southfork on Rio Grande, electricity, well, \$34,000 OBO. McCoy, 821-2509.

'72 REDWOOD MOBILE HOME, 14' x 52', 2-bdr., needs some work, \$6000. Acton, 1-988-1479.

2.65 ACRES, Cedar Crest, wooded, views, protective covenants, water, power, good roads, \$42,000. Clark, 292-1495.

LARGE LOT, view of city, east of Tramway, north of freeway, borders on open-space land, \$35,000. Goodwin, 294-6702.

TOWNHOUSE near Tramway and Menaul, 2-bdr., 2 baths, double garage, fireplace, available Aug. 1. Alzheimer, 296-1774.

MOBILE HOME, '85 Champion, 14' x 50', 2-bdr., gas stove, refrigerator. Kolb, 281-1570 after 9.

3-BDR. HOUSE, 1 bath, 1016 Marron Circle NE. Salas, 256-0385.

FOUR 7-ACRE PARCELS, South 14-222 area, wooded, panoramic views, secluded, good water area. Kelton, 345-3834.

3-BDR., 1-3/4 BATH HOME, large kitchen, backyard access, near Tramway and Indian School. Reinarts, 256-9542.

TWO 5-ACRE TRACTS off South 217, electricity, phones, water, established area, \$4500/acre, will accept vehicle as down. Silva, 255-3723.

4-BDR. HOME, 1900 sq. ft., Candlelight Hills (Eubank/Spain area), LP, den, 1-3/4 baths, 8-3/4% assumable loan. Mora, 821-6759.

WANTED

WROUGHT IRON FENCING, unglazed tiles, tree wells, flagstones, red patio blocks and bricks; in good condition, any size/quantity. Dubicka, 296-6557.

TOYS, WAGON, swing set, bicycle, desk and chair, books, clothes for 6-year-old boy, needed by new foster parents. Bertram, 345-2103.

HORSE HOBBLES and pack saddle. Miller, 873-3450.

POOL TABLE, slate top, will consider regulation size, prefer shorter size. Vigil, 296-3590.

CEMENT MIXER, portable, buy or rent. Drotning, 294-4807.

HOUSEMATE, Juan Tabo Central area, 3-bdr., 2-bath, den w/FP, double garage w/opener, laundry facilities, smoking OK, pets. Nordeen, 296-7898.

HOUSEMATE, own room and bath for nonsmoker in quiet NE Heights neighborhood, \$225 mo. plus 1/2 utilities. Levin, 299-0891.

BABY BED, good condition. Brigham, 293-6914.

ROOMMATE, share 2-bdr., 2-bath, new mobile home, close to base, pool, \$200 plus 1/2 utilities. Wrobel, 881-4491 before 5.

ACCOMMODATIONS for two couples on Maui, Kauai, Oahu starting 1/17/87. Mikkelsen, 881-3921.

WORK WANTED

HOUSESITTING, college junior, watering, care of pets, etc., during your vacation. Kenna, 298-6059.

BABYSITTING, by high school sophomore, references. Castellano, 242-7097.

LOST

SUNGLASSES, at Air Guard softball field. Garcia, 298-7340.

Patio Family Night Set for Aug. 13

BRING THE FAMILY and bathing suits to a big party on the patio Wednesday evening, Aug. 13. Swim from 6:30-8:30, and stoke up on dinner somewhere along the way at the outdoor patio grill or snack bar. There'll be all kinds of goodies available: sandwiches (hot dogs, Polish dogs — no Polish cats, though — and hamburgers), french fries, ice cream, and 50-cent beer. Fun for everyone is guaranteed!

TOMORROW NIGHT is Variety Night at the Club, with everybody — members and nonmembers — invited. A low-price buffet featuring pizza, hot dogs, and hamburgers gets things started at 5 p.m. World-renowned (well, at least *Albuquerque*-renowned!) Professor Flora entertains with an all-new magic show at 5:30. A side-splitting lineup of Disney cartoons starring Amos the Mouse, Donald Duck, Mickey Mouse, and Chip 'n Dale lights up the big screen at 6.

IF YOU HURRY to your phone, there may still be a chance to make a reservation for the Sunday brunch two days from now on Aug. 3. Club manager Sal Salas reminds us that everybody — not just Club members — is invited to this one. The brunch buffet, served from 11-2, features ham, baron of beef, sausage, scrambled eggs, fruit salad, hash browns, green chile, and full salad bar. It's \$4.95 for adults, half price for children under 12. Don't let all those goodies escape your grasp — give the Club office a call at 265-6791.

THE TWO-FOR-ONE DINNER special next Friday night (Aug. 8) features prime rib or fried shrimp — your choice of entree, two dinners for the low, low price of \$14.95. Wear your samba shoes because a group called Lumbre, blasting out lots of Latin and variety music, plays for dancing after dinner from 8-midnight. Help out the Club kitchen by making your reservation soon.

A FREE WINE TASTING allows members to sample vintages from the Club's all-new, expanded wine list on Friday night, Aug. 15, from 6:30-8 p.m. Plan to make a night of it. The two-for-one dinner special that night features filet mignon or lobster — two super entrees to go along with the wine samples! Afterward someone named Deputy Dan provides the dancing music from 8-12. We assume the deputy doesn't play Latin, but goes for you-know-what instead. Who knows? The Club may book Matt Dillon or Wyatt Earp next . . .

BOWLED OVER? You won't be if you come out for the organizational meeting of the C-Club adult bowling league on Friday, Aug. 8, at 6:30 p.m. in the Eldorado room. For more info, contact Pam Collyer at 255-1282 after 5 p.m.

Junior league bowling members, not to be outdone, have *their* organizational meeting for the fall season on Tuesday, Aug. 19, from 6:30-7:30 p.m. in the Eldorado room. C-Club members' boys and girls, seven years old through high school age, are eligible. More info from Ciss Kelly at 255-8011.

THUNDERBIRDS, TAKE NOTE: The T-Bird Board of Directors meets Monday, Aug. 18, at 2 p.m. All members are welcome. Also — anyone interested in participating in a T-Bird exercise class should contact Nick DeLollis at 299-5384.

YOUR CHANCE TO HOWL under a full moon comes up on Aug. 19, a Tuesday evening. Load up your plate at an a la carte BBQ buffet on the patio, served from 5-8 that night. Featured food includes BBQ beef sandwiches (as everyone knows, a Club specialty), hot dogs, hamburgers, all kinds of salad — potato, macaroni, and fruit — and New Mexico chile beans. After you've digested it all, dance from 7-10 p.m. to the music of the Old Cooters. (You'd think it would be the Old Werewolves playing on a full-moon night!) Call the Club office to make your reservation for a cool night on the patio. And yes,

Virginia, there really *is* a full moon on Aug. 19.

SPEAKING OF HOWLING, the Coronado Wolfpack's annual Fall Football Membership Party comes up on Sunday, Aug. 10, starting at 4 p.m. at the patio and pool of Roy and Judy Carroll, 8917 Osuna NE. Members and would-be members are invited to this bash, which features UNM football coach Joe Lee Dunn and members of his staff as guest speakers. Swim from 4-5:30, enjoy the cocktail half hour from 5:30-6, and eat to your heart's content starting at 6. Furnished: 12-oz. steaks, soft drinks, wine, beer. You bring: a pot luck dish, lawn chairs, bathing suit, towel, soap, suntan lotion. All this fun costs only \$5. Send your check by Aug. 5, payable to the Coronado Wolfpack, to Dick Baughman (1154), or to Dick at his home address — 7309 Dellwood NE 87110.

THERE'S AN OUTSIDE CHANCE that you can still sign up for the Aug. 4-28 session of adult tennis lessons at the Club courts. The classes — on Monday and Wednesday — run from 6-6:45 p.m. for beginners and 6:45-7:30 p.m. for intermediates. Cost for the four weeks is \$24. Call the pool office at 266-5587 for more info.

Another tennis note: If enough interest is shown, a children's intermediate tennis class (mornings) may be offered. Call the pool office to have your name placed on the list.

PSST! A SECRET MESSAGE to all kids under 12 — Tell your parents that under no circumstances should they use the C-Club pool and patio area as a free day-care center or baby-sitting service! Don't let 'em drop you off and pick you up later. Tell 'em the pool staff is too busy to watch you, and wouldn't know whom to call if you fell and cut your knee, or something. Remind them it's a C-Club rule that all kids your age who enjoy time at the pool/patio area *must* be accompanied by an adult at all times. And let them know that you really don't want to become personally acquainted with the Base police, which may happen the next time you're discovered to be there all by yourself.

TRAVELIN' ON — That's what you'll be doing if you sign up for those terrifically tantalizing tours planned by the C-Club Travel Committee. Here are some of them:

Colo. and N. Mex. — What photographer wouldn't give his (her?) eye teeth for the chance to catch hundreds of golden aspen on film from Sept. 27-30? Photo opportunities abound on this sojourn to southern Colorado and northern New Mexico. Lodging at Telluride and Pagosa Springs, round-trip charter bus fare, continental breakfasts, and dinner at Rancho de Chimayo on the way home are all included in the low \$145/person price.

Okla., Ark., Mo. — Lots of local attractions in three states are yours if you sign up for this Oct.

18-24 getaway: spectacular fall foliage in the Ozarks, Tulsa's Gilcrease Museum, the Will Rogers Memorial, Miles Music Museum, exotic animals in Branson's Wilderness Safari, Shepherd of the Hills outdoor drama, the Great Passion Play, and the Fall National Crafts Festival. The \$637/person cost includes air fare to Tulsa, lodging, two special dinners, hillbilly and popular music shows, and all admission fees.

Nev. and Ariz. — It's Laughlin in the former and Lake Havasu City in the latter on this action-packed adventure Oct. 13-16. Rip-roaring Laughlin, known as Las Vegas South to Nevada natives, is already bracing itself for C-Club invaders, who are known for their ability to beat the gaming tables every time! You'll stay at the posh Edgewater Casino/Hotel in LV South, and there's a one-day side trip planned to Lake Havasu City where you can check out London Bridge — right there in the middle of the desert. For \$150/person you get round-trip motorcoach fare, three nights in Laughlin, a free breakfast or lunch buffet of your choice, and refreshments along the way. Hurry on that reservation — there's an early deadline (Aug. 15) because of the tight accommodations scene in Laughlin.

Ariz. (again) — This one's a best-buy weekend trip to Canyon de Chelly Oct. 25-26. Travel honcho Marv Plugge says it's filling fast, so sign up soon! It includes charter bus, one night at the Thunderbird Lodge, jeep tour of both canyons, continental breakfast the first day, a picnic lunch at Wheatfields Lake, and a stop at the Hubbel Trading Post — all for \$98/person. Costs you more to stay at home!

Calif. — How does southern California in the middle of winter sound to you? Here's a chance for the whole family to escape the blustery weather from Dec. 29-Jan. 2. The trip includes an all-day visit to Disneyland, a tour of Universal Studios, a cruise to Catalina Island, tickets for the Disneyland New Year's Eve party, reserved seats for the Rose Bowl Parade (and afterward a visit to Victory Park, where the floats are on display), a day of sightseeing (including a stop to explore the Queen Mary), and more. The \$398/person (double occupancy) price includes round-trip air fare to LA, four nights' lodging at the brand-new Desert Inn Hotel (located just across the street from Disneyland), local charter bus transportation, admissions to all the above attractions, dinner at Castagnola's Lobster House, etc., etc.

Non-U.S. — We don't have all the details, but some lucky folks will be spending part of November at the fabulous Club Cozumel Caribe (CCC) on beautiful Cozumel Island, 12 miles off Mexico's Yucatan Peninsula. No firm dates as yet, but we do know the CCC offers free scuba diving trips, day trips on a Spanish galleon along the Yucatan coast, beach parties and fiestas, nightly entertainment, movies, and unlimited water sports. And, of course, those white sandy beaches and ocean breezes. Watch this space for more info.



FLOWERS ARE FLOURISHING all over the Labs these days, thanks to some fine work by the crews in Plant Maintenance and Operations 7810. The ones here are in front of Bldg. 800, where horticulturist Willie Lucero (7813) tends them faithfully. Enjoying the blossoms is Youth Opportunity Trainee — one of 86 at Sandia this summer — Rachael Baca (3161/3151A/ 3741; she's a versatile lady). A spring graduate of Belen High School, she'll start on a degree in business administration at UNM this fall.